

RISK AND COST TENDER FOR COMPLETION OF INCOMPLETE WORK AGAINST FOR

INTEGRATED VIDEO SURVEILLANCE SYSTEM (CCTV) AT HPCL Schedule (EAST ZONE)

- 1) JATNI LPG Plant
- 2) JAMSHEDPUR
- 3) Paharpur LPG Plant
- 4) Raipur LPG Plant
- 5) Panagarh LPG Bottling Plant

RFP Ref No.: BECIL/PROJ/IT & Media/RFP-2/HPCL/CCTV/2023-24, Dated: 04.03.2024

Issued By (Mr. Bipin B. Pandey)

Broadcast Engineering Consultants India Limited

(A Government of India Enterprise)

CIN No.: U32301UP1995GOI017744

Corporate Office:

BECIL BHAWAN, C-56-A/17, Sector-62, Noida-201 307Tel:

0120 4177850, Fax: 0120 4177879

Head Office:

14-B Ring Road, IP Estate, New Delhi- 110002Tel:

011 23378823, Fax: 01123379885

Web: www.becil.com

E-mail: bipin.pandey@becil.com





DISCLAIMER

The information contained in this Request for Proposal document (the "RFP") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of BECIL or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided. This RFP is not an agreement and is neither an offer nor invitation by BECIL to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in making their offers (Bids) pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by BECIL in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for BECIL, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. Each Bidder should, therefore, conduct its own investigations, actual site/ facilities/location inspections and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources. Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. BECIL accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein. BECIL, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant or Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way for participation in this Bid Stage. BECIL also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP. BECIL may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP. The issue of this RFP does not imply that BECIL is bound to select a Bidder or to appoint the Selected Bidder for the Project and BECIL reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever. The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by BECIL or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and BECIL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process. In case of any rejection/cancellation, no bidder has any right to claim any compensation or reimbursement to cost. Participation in **RFP** does not guarantee selection of bidder.



SECTION -I

INTRODUCTION AND BRIEF DESCRIPTION

1. ABOUT BECIL

Broadcast Engineering Consultants India Limited (BECIL), an ISO 9001:2015, 27001:2013, ISO/IEC 2000:2012 certified Mini Ratna Central Public Sector Enterprise (CPSI) was incorporated on 24th March, 1995 under the Companies Act, 2013 (erstwhile the Companies Act, 1956) by Government of India with 100% equity share capital of BECIL held by President of Inda through Secretary and Joint Secretary of Ministry of Information & Broadcasting.

The Company was initially set up for providing project consultancy services and turnkey solutions encompassing the entire gamut of radio and television broadcast engineering, establishment of transmission facilities Le content production facilities, terrestrial, satellite and cable broadcasting in India. The company has now diversified into the fields of Strategic Projects such as Information Communication.

Technology, Electronic Surveillance (namely CCTV, Access Control, Intrusion, Fire Safety, Hydrants, etc.). Electronic Media contents including films, Sentinel Analytics, Counter Drones/UAV etc. The activities include, but are not limited to Supply, Installation, Testing & Commissioning, Consultancy Services, Technical Audit, Media Analysis, R&D, projects pertaining to Digital India, City Surveillance, Safe City. Smart City, Make in India, Manufacturing, Audio Video & Data Analysis, Cyber Security, Engineering, Procurement & Construction, Project Management Services, Operation and Maintenance, Manpower Placement, AMC and providing total turnkey project for critical information infrastructure.

BECIL, has its Head Office in New Delhi, Corporate Office in Noida and Regional Office in Bangalore and Kolkata. BECIL is exploring geographical expansion in many states due to diversification in business portfolios.

Over the years, BECIL has consciously groomed and developed a team of in-house, versatile and dedicated engineers and also cultivated and harnessed a vast reservoir of professionals drawn from various fields of Broadcasting Industry, which include public and private Broadcasters, Defense and Cable Industry. Through this network of resourceful technical professionals, BECIL, has established its pan India presence to serve the needs of the industry.

BECIL has a vast reservoir of experts and integrates the expertise of All India Radio (AIR) and Doordarshan (DD), the national broadcaster of India, catering to one of the largest Radio Networks reaching out to more than a billion people and the world's largest Terrestrial Television Network supplemented by Analogue and Digital satellite Broadcasting services reaching out to millions of TV homes in India and abroad.



SECTION -II

2. <u>IMPORTANT DATES (SCHEDULE AND CRITICAL DATES)</u>

S.No	ACTIVITY	SCHEDULED DATE & TIME
1.	RFP Number & Date	RFP Ref No: BECIL/PROJ/IT & Media/RFP-
		2/HPCL/CCTV/2023-24 Dated: 01.02.2024
2.	Date & Time of Issue of RFP	Date 04.03.2024
		Time 05:00 PM
3.	Last date and Time for	Date 11.03.2024
	Submission of bids	Time 11:30 AM
4.	Place of Submission of RFP	
	/ Opening of RFP	BECIL Bhawan, C-56 / A -17, Sector - 62, Noida – 201 307/
		RFP opening:
		A. Technical Bid
		Date 30-01-2024,
		Time 4:00 PM
		B. Financial Bid: Date and Time to be intimated
5.	RFP Processing Fee (Non-refundable)	INR 15000/- + GST (Proof of submission to be submitted in BID)
6.	EMD	Cost: - 3, 12, 96,857 Cr.
		3% of tender value
7.	Address for Communication of bids	BECIL Bhawan, C-56 / A -17, Sector - 62, Noida – 201 307.
8.	Contact details for this RFP	1) Bipin B. Pandey
		Deputy General Manager
		Bipin.pandey@becil.com

 NOTE: Broadcast Engineering Consultants India Ltd. reserves the right to amend the RFP tentative schedule and critical dates without giving any explanation whatsoever. Corrigendum may be published in this regard on www.becil.com. Bidders are advised to check the website for updates in this regard.

SECTION –III RFP NOTICE & GENERAL TERMS AND CONDITION



3. RFP NOTICE

2.1 Broadcast Engineering Consultants India Limited (BECIL) invites Expression of Interest (RFP), through offline mode, for selection of an Implementation Agency/ System Integrator / Back end Technology partner of BECIL,

2.2

- 2.3 The duly signed Hard Copy of the Bid/ Techno Commercial Proposal is to be submitted in a packed and sealed envelope, in Tender Box, BECIL BHAWAN C56/A17 Sector 62 Noida (UP) 201307.
- 2.4 The RFP must be addressed to the given name and address:

To,
Sh. Bipin B. Pandey **DGM (IT & Media)**Broadcast Engineering Consultants India Limited
C-56/A-17, Sector-62, Noida, Uttar Pradesh-201307

- 2.5 The RFP must be submitted in English Only. All the documents including the supporting documents/enclosures etc. must be Calibri/Aerial/Times New Roman, font size-12 and fully legible. Supporting documents if in a language other than English must be accompanied by a English translated document. The English version shall prevail in matters of interpretation. Each and every page of the RFP should be numbered and mention the relevant page no. of the documents in the checklist. RFP Documents which are not legible shall be rejected.
- 2.6 The representative of agency will require a specific authorization/ board resolution to submit the RFP.
- 2.7 In case the bidder has any doubt about the meaning of anything contained in the RFP document, she/he shall seek clarification within 1 day of issue of RFP. Except for any written clarification by Shri Arvind Gome, Project Manager (arvindgome@becil.com), BECIL, no written or oral communication, presentation or explanation by any other employee of BECIL shall be taken to bind or fetter BECIL under the contract.
- 2.8 Bidders shall have to submit an amount of <u>Rs. 15,000/- + GST</u> through RTGS/ NEFT to BECIL (<u>Bank Mandate Form Enclosed at Annexure B</u>) towards the cost of RFP Document and no other mode of payment is acceptable. RFP Document is also available at BECIL Office: C-56/A-17, Sector-62, Noida, Uttar Pradesh-201307. The cost of RFP document is non-refundable.
- 2.9 The Management of BECIL reserves the right to amend or withdraw any of the

terms and conditions mentioned in the RFP Document or reject any or all the bids without giving any notice or assigning any reason. The decision of the Director, Broadcast Engineering Consultants India Limited in this regard shall be final and binding on all.

- 2.10 BECIL reserve the right to amend any term of the RFP at any point of time before the submission and bidder should regularly check the website. Further, BECIL also reserves to increase/decrease/delete/add any BOQ item. Further any amendment done by client after the selection of bidder, all the amendment will be applicable. In case of non-acceptance of such amendment, the EMD submitted will be forfeited by BECIL.
- 2.11 The bidder should submit the signed Integrity Pact on a plain paper along with the bid.
- 2.12 The Bidders will have no right to withdraw from the RFP process post submission of their bid without the formal consent of BECIL.

4. SUBMISSION OF RFP

- 3.1 RFP, complete in all respects, must be submitted offline.
- 3.2 BECIL may, at its own discretion, extend the date for submission of RFP. In such a case all rights and obligations of BECIL and the Bidders shall be applicable to the extended time frame.
- 3.3 As the RFP can be submitted only up to the defined date and time, there can't be any late bids. BECIL will not be responsible for any delay in obtaining the terms and conditions of the tender. BECIL will not be responsible for postal delays. Bids received after the due date will not be opened and rejected.
- 3.4 At any time prior to the last date for receipt of RFP, BECIL may for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the RFP Document by an amendment. The amendment will be notified on BECIL's website http://www.becil.com and should be taken into consideration by the prospective bidders while preparing their RFP.
- 3.5 The bidders will bear all costs associated with the preparation and submission of their bids. BECIL will, in no case, be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.
- 3.6 The RFP must contain:
 - 3.6.1 Company/bidder profile relevant to RFP.
 - 3.6.2 It should also include details of past experience relevant to the "Scope of

Work".

- 3.6.3 Declaration regarding acceptance of Terms and conditions of RFP.
- 3.6.4 Declaration of not been blacklisted by any of the Government agency.
- 3.6.5 Essential information such as Name & address of the agency, Business Name, E-mail id, Fax No. /Telephone No., Authorized Signatory name, E-mail ID and contact no.
- 3.7 The agency/ bidder/OEM/Implementation Agency shall ensure that it fulfills the eligibility criteria as desired in the RFP and other essential conditions. Compliance statement of Eligibility criteria with the documents submitted as a proof is to be prepared and submitted. The supporting documents may be with list of existing and past clients with details of services offered, details of similar projects executed.
- 3.8 The RFP should be duly signed on each page by authorized person. Each page should be properly numbered. Documents authorizing the signatory must accompany the RFP.
- 3.9 The RFP complete in all respects must be submitted with requisite information and annexure(s). The RFP should be free from ambiguity, change or interlineations. Incomplete RFP will not be considered and is liable to be rejected without making any further reference to agency/bidder/OEM/Implementation Agency(s).
- 3.10 Bidders have to take into account any changes/amendments made in the end client's tender/RFP through corrigendum till date of submission of bid in response of RFP.
- 3.11 The bidder shall be ignored, if complete information is not given there-in, or if the particulars and data (if any) asked for are not filled in properly.

Cover -I

3.12	Checklis	t of documents/information to be submitted		
	(a) Profile of the company/bidder/firm			
	(b)	Certificate of Incorporation (for Company/LLP)		
	(c)	Memorandum & Articles of Association/Partnership deed		
	(d)	Audited financial statements for the last 3 years i.e. for FY 2020-		
		21,2021-22 & 2022-23		
	(e) Income Tax Return Acknowledgment for last 3 years i.e. for F			
		2020-21, 2021-22 & 2022-23		
	(f)	Certificate of financial capability / credit facility issued by bank		
	(g)	Bid Security Declaration to be submitted by the MSME /Entity		
	(h)	GST Registration Certificate or valid exemption certificate		
	(i) Copy of PAN Card			
	(j)	Any other relevant registration documents on registration with		
		other appropriate authorities (ESIC, EPFO, Labour Deptt etc.)		

(k)	Authorization letter in the bidder's letterhead authorizing the					
	person signing the bid for this RFP as Power of Attorney (POA)					
(1)	Undertaking in letter head to indemnify BECIL from any claims /					
	penalties / statutory charges, liquidated damages, with legal					
	expenses etc.					
(m)	Bidders Details as per format					
(n)	All the requisite documents in the prescribed formats placed at					
	Annexures to this RFP					
(o)	(o) Pre-Contract Integrity Pact as per Annexure-A					
	(a) "Bidders participating in the RFP have to agree to sign Integrity					
	Pact on placement of order / contract"					
	(b) "Those bidders who are not willing to sign Integrity Pact will not					
	be considered for bid opening"					
(p)	All the documents in support of Technical criteria like Experience					
	Certificates, PO, proposed Makes for the solution, Solution					
	architecture (if asked) and other documents as required.					

Bill of Material:-

Make and model :-

- 1) INDUSTRIAL GRADE (4 & 8 PORT) LAYER 2 MANAGED NETWORK SWITCH :- ELECTRALYSYS
- 2) 12 PORT NETWORK SWITCH :- ELECTRALYSYS3)
- 3) OFC:- Finolex
- 4) HPL Electric :- HPL Electric
- 5) CAT 6 Ethernet Cable :- HPL Electric
- 6) Network Attached Storage :- Level One
- 7) FLP Junction box :- Sai Industries
- 8) High Definition LED Monitor :- Samsung/Acer
- 9) LIU/ FIBER MANAGEMENT SYSTEM :- Orris
- 10) HD IP Fixed Dome Camera with IRF and MFZ lens (INDOOR DOME CAMERA) :- Level One
- 11) HD IP Fixed Bullet cameras (Non FLP & 8 MP 4K resolution with Motorized Zoom):- Level One
- 12) Non-FLP HD IP Fixed Cameras (2MP) with motorized Zoom :- Level One
- 13) HD IP Fixed Outdoor Box Camera (Perimeter Camera) :- Level One
- 14) Explosion Proof HD IP Fixed Cameras (2MP) with motorized Zoom :- Level One
- 15) NON FLP Pan Tilt Zoom (PTZ) Camera- Outdoor :- Level One
- 16) Camera Pole :- Kasper
- 17) Cat6 Armoured Cable :- HPL Electric
- **18)** VMS & VA :- Level One

Note: - Details of actual equipment installed.

PO line no	Item	Location	иом	Actual Installed Qty	Remarks
1	Fixed Camera FL12	Jatni	EA	21	
2	FLP Enclosur Fixed Camera F12	Jatni	EA	7	
3	Fixed camera motorized zoom2MP	Jatni	EA	4	
4	Indoor (Dome) 2MP	Jatni	EA	3	
5	Fixed Camera FL50	Jatni	EA	10	
6	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	Jatni	Meters	3000	
7	OPTICAL FIBER CABLE,SM,12 CORE	Jatni	EA	4000	
8	SPLY AND LAYG OF ARMOURED CAT6	Jatni	Meters	1600	
9	GI EARTHING WIRE 8SWG	Jatni	Meters	1600	
10	SPLY&LAYG OF UNARMOURED CAT6	Jatni	Meters	915	
11	CONST OF CABLE TRENCH	Jatni	Meters	4000	
12	NETWORK SWITCH,MANAGED,8 PORT	Jatni	Each	36	
13	NETWORK SWITCH,MANAGED 12 PORT	Jatni	ST	4	
14	JUNCTION BOX	Jatni	Each	12	
15	FLP JUNCTION BOX	Jatni	Each	28	
16	GI Pole 8 MT	Jatni	Each	37	
17	HARD DISK DRIVE per TB cost	Jatni	EA	100	
18	55 inch LED TV	Jatni	EA	2	
19	VIDEO MANAGEMENT SOFTWARE	Jatni	Each	64	
79	Fixed Camera FL12	Jamshedpur	Each	9	
80	FLP Enclosur Fixed Camera F12	Jamshedpur	Each	4	
81	Fixed camera motorized zoom2MP	Jamshedpur	Each	2	
82	Indoor (Dome) 2MP	Jamshedpur	Each	2	
83	Fixed camera Motorized zoom 4K	Jamshedpur	Each	2	
84	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	Jamshedpur	Meters	1500	
85	OPTICAL FIBER CABLE,SM,12 CORE	Jamshedpur	Meters	1500	
86	SPLY AND LAYG OF	Jamshedpur	MT	1000	

	ARMOURED CAT6				
87	GI EARTHING WIRE 8SWG	Jamshedpur	MT	500	
- 07	SPLY&LAYG OF	damoneapar	1011	300	
88	UNARMOURED CAT6	Jamshedpur	EA	400	
89	CONST OF CABLE TRENCH	Jamshedpur	MT	1200	
90	NETWORK SWITCH,MANAGED,8 PORT	Jamshedpur	Each	20	
91	NETWORK SWITCH,MANAGED 12 PORT	Jamshedpur	ST	4	
92	JUNCTION BOX	Jamshedpur	Each	5	
93	FLP JUNCTION BOX	Jamshedpur	Each	10	
94	GI Pole 8 MT	Jamshedpur	Each	9	
95	HARD DISK DRIVE per TB cost	Jamshedpur	Each	20	
96	55 inch LED TV	Jamshedpur	Each	1	
97	VIDEO MANAGEMENT SOFTWARE	Jamshedpur	Each	32	
42	Fixed Camera FL12	Paharpur	Each	9	
43	FLP Enclosur Fixed Camera F12	Paharpur	Each	6	
44	Indoor (Dome) 2MP	Paharpur	EA	2	
45	Fixed camera Motorized zoom 4K	Paharpur	EA	1	
46	Fixed Camera FL50	Paharpur	EA	6	
47	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	Paharpur	MT	2000	
48	OPTICAL FIBER CABLE,SM,12 CORE	Paharpur	EA	2500	
49	SPLY AND LAYG OF ARMOURED CAT6	Paharpur	MT	750	
50	GI EARTHING WIRE 8SWG	Paharpur	Meters	800	
51	SPLY&LAYG OF UNARMOURED CAT6	Paharpur	Meters	915	
52	CONST OF CABLE TRENCH	Paharpur	Meters	3000	
53	NETWORK SWITCH,MANAGED,8 PORT	Paharpur	Each	32	
54	NETWORK SWITCH,MANAGED 12 PORT	Paharpur	ST	4	
55	JUNCTION BOX	Paharpur	EA	3	
56	FLP JUNCTION BOX	Paharpur	EA	17	
57	GI Pole 8 MT	Paharpur	Each	12	
58	HARD DISK DRIVE per TB cost	Paharpur	Each	40	
59	55 inch LED TV	Paharpur	Each	2	
60	VIDEO MANAGEMENT	Paharpur	Each	32	

	SOFTWARE				
21	Fixed Camera FL12	Raipur	Each	25	
22	FLP Enclosur Fixed Camera F12	Raipur	Each	13	
23	Fixed camera motorized zoom2MP	Raipur	Each	4	
24	Indoor (Dome) 2MP	Raipur	Each	5	
25	Fixed camera Motorized zoom 4K	Raipur	Each	1	
26	Fixed Camera FL50	Raipur	Each	18	
27	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	Raipur	Meters	4300	
28	OPTICAL FIBER CABLE,SM,12 CORE	Raipur	Each	5200	
29	SPLY AND LAYG OF ARMOURED CAT6	Raipur	Each	3800	
30	GI EARTHING WIRE 8SWG	Raipur	Meters	1800	
31	SPLY&LAYG OF UNARMOURED CAT6	Raipur	Meters	915	
32	CONST OF CABLE TRENCH	Raipur	Meters	4300	
33	NETWORK SWITCH,MANAGED,8 PORT	Raipur	Each	36	
34	NETWORK SWITCH,MANAGED 12 PORT	Raipur	ST	6	
35	JUNCTION BOX	Raipur	EA	8	
36	FLP JUNCTION BOX	Raipur	Each	27	
37	GI Pole 8 MT	Raipur	Each	33	
38	HARD DISK DRIVE per TB cost	Raipur	Each	100	
39	55 inch LED TV	Raipur	Each	2	
40	VIDEO MANAGEMENT SOFTWARE	Raipur	Each	64	
62	Fixed Camera FL12	Panagarh	Each	11	
63	FLP Enclosur Fixed Camera F12	Panagarh	Each	4	
64	Fixed camera motorized zoom2MP	Panagarh	Each	2	
65	Indoor (Dome) 2MP	Panagarh	Each	2	
66	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	Panagarh	Meters	2200	
67	OPTICAL FIBER CABLE,SM,12 CORE	Panagarh	Meters	2400	
68	SPLY AND LAYG OF ARMOURED CAT6	Panagarh	Meters	610	
69	GI EARTHING WIRE 8SWG	Panagarh	Meters	750	
70	SPLY&LAYG OF UNARMOURED CAT6	Panagarh	Meters	100	

71	CONST OF CABLE TRENCH	Panagarh	Meters	2200	
72	NETWORK SWITCH,MANAGED,8 PORT	Panagarh	Each	20	
73	JUNCTION BOX	Panagarh	Each	6	
74	FLP JUNCTION BOX	Panagarh	Each	14	
75	GI Pole 8 MT	Panagarh	Each	10	
76	HARD DISK DRIVE per TB cost	Panagarh	Each	40	
77	VIDEO MANAGEMENT SOFTWARE	Panagarh	Each	64	

Bidder will have to a take detailed site survey on all the sites i.e. (Jamshedpur, Raipur, panagarh, pahadpur, jatni) to get the exact detail of supplied material and installed material.

After site survey bidder can quote for pending work for all sites. Actual Pending works will be certified by the BECIL on receipt of survey report of pending work done by bidder.

5. OPENING OF RFP

- 4.1 The bids submitted against this RFP shall be opened on 11.03.2024 at 11:00Am . BECIL reserves the right to change the date of opening of bid.
- 4.2 Bidders who wish to attend opening of RFP may visit BECIL Noida office for the same at the designated time, with authorization in proper format on bidder's letter head.

6. GENERAL TERMS & CONDITIONS OF RFP

5.1 The RFP Processing Fee, technical bid and financial bids are to be placed in separate sealed envelopes, super scribed with words "RFP Processing Fee", "Technical Bid". All the envelopes as mentioned above are to be placed inside a single sealed envelope named as "Response for RFP No. BECIL/PROJ/IT & Media/RFP-2/HPCL/CCTV/2023-24, Dated: 01.02.2024

Submitted by: [Firm/Company name]

- 5.2 All bids are to remain valid for minimum of 180 days from the date of submission. BECIL reserve the right to seek the extension of bid validity.
- 5.3 BECIL reserves the right to solicit additional information from

bidder/OEM/Implementation Agency to evaluate which bid best meets the need of the Project. Additional information may include, but is not limited to, past performance records, lists of available items of works which will be done simultaneously with the project, on-site visit and evaluations by BECIL personnel, or any other pertinent information. It will be vendor's responsibility to check for updated information on website https://www.becil.com. BECIL reserves the right to cross verify the information directly with client

- 5.4 BECIL reserves the right to waive off any deviations, accept the whole or part thereof or reject any or all bids and to select the bidder/OEM/Implementation Agency(s) which, in the sole opinion of BECIL, best meets the project's interest. BECIL also reserves the right to negotiate with potential bidder/OEM/Implementation Agency(s) so that its best interest to fulfill the need of project is served.
- 5.5 BECIL reserves the right to reject any and all proposals, to negotiate all terms of any agreement resulting from this RFP, and to request additional information from bidder.
- 5.6 All information contained in this RFP, or provided in subsequent discussions or disclosures, is proprietary and confidential. No information may be shared with any other organization, including potential sub-contractors, without prior written consent of BECIL.
- 5.7 In case the agency selected through RFP goes into liquidation or undergoes a change in business/management, it will be intimated to BECIL & the selected agency will fulfill its commitment in case order is awarded to them. In case the selected agency is not able to perform, the work under reference will be done at risk & cost of the selected agency (successful bidder). EMD or PBG as the case may be will be forfeited by BECIL.
- 5.8 Any dispute or difference or claim arising out of or in relation to this RFP, including the construction, validity, performance or breach thereof, shall be settled or decided by CMD/Director, BECIL or by any other person to be nominated by CMD/Director.

5.9 Intellectual Property Rights:

- All deliverable, outputs, plans, drawings, specifications, designs, reports and other documents and software submitted by the bidders under this RFP and subsequent to this RFP in relation with this tender shall become and remain the property of BECIL/procuring entity and subject to laws of copyright and must not be shared with third parties or reproduced, whether in whole or part, without BECIL's/ the procuring entity's prior written consent.
- The bidder shall, not later than upon termination or expiration of this RFP and/or subsequent Agreement/Contract signed with the bidder, deliver all such documents and software to BECIL/the procuring entity, together with a detailed inventory thereof.
- The bidder may retain a copy of such documents and software but shall not use it for any

commercial purpose.

5.10 The bidder shall submit an undertaking on their letter-head stating that:

"In reference to the Government of India, Ministry of Finance, Department of Expenditure, Office Memorandum No. F.No. 6/18/2019-PPD, Dated 23-07-2020. I hereby submit that:

"We have read the Clause regarding restrictions on procurement from a bidder of a country whichshares a land border with India; We certify that we are not from such a country or our beneficial owner is not from such a country or we will not sub-contract any work to a contractor from such countries, if from such a country, have been registered with the Competent Authority.

We hereby certify that we fulfill all requirements in this regard and are eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]".

5.11 The bidder needs to submit an Undertaking stating that: Vendors, whose Purchase Order(s) for any Project of BECIL was/were cancelled on risk & cost basis for non-performance or non-submission of performance guarantee in last 2 years, are not eligible to participate in this tender.

7. SIGNING OF NON-DISCLOSURE AGREEMENT

Bidders interested to participate in a RFP, where client requires signing of NDA, then bidder also have to sign a NON-DISCLOSURE AGREEMENT with BECIL on a non-judicial stamp-paper of Rs. 100, and the required RFP document fee has to be deposited to BECIL. Participation without compliance to above shall be invalid and such bids will not be considered by BECIL.

8. SCOPE OF WORK/SCHEDULE OF REQUIREMENTS

8.1 For detailed scope of work of the project & the Bill of Material, the bidders may refer the Tender document, and its amendments & corrigenda issued subsequently (if any); <u>Tender</u> details references are as below and the same is also attached along with this RFP.

(Bidders are instructed to check for any new corrigendum/amendments etc. before bidding)

Tender Reference No: BECIL/PROJ/IT & Media/RFP-2/HPCL/CCTV/2023-24, Dated: 04.03.2024

Website: (Through Portal) http://www.BECIL.COM

Scope :-

To provide continuous surveillance of the protected areas viz. operating area, security gates, Perimeter, bulk storage area, TT gantry, Pump house and other vital areas within the Location

- To provide remote (over LAN) plant overview by manual command and/or automatic selection. System should be capable of remote monitoring and control for future expansion.
- To monitor entry and exit of all vehicles and human beings at the main gate and keep recording of the same.
- To provide overview of Truck parking area, Truck entry and exit gates, Truck loading and Unloading area, Tank truck unloading area for monitoring of proper vehicle movement and aid in avoiding congestion at any of these points.
- To provide an overview of critical operating areas such as Tank farm, TT gantry, Pump house, Fire pump house, loading/unloading platform etc. for monitoring of safe operating practices.
- Complete recording of all the Cameras for minimum 90 days.

SECTION –V ELILIGIBILITY CRITERIA AND EVALUATION



1. Company/Bidder's Profile:

- (a) The Bidder shall be Company/bidder incorporated /registered in India under Companies Act 1956/2013/ proprietorship/ partnership firm/ Limited Liability Partnership (LLP). (It should be tender / RFP specific)
- (b) The bidder should have a valid PAN and GST Registration. Copy of PAN card and GST Registration certificate should be submitted in the bid.
- (c) The bidder should not be insolvent, in receivership, bankrupt or being wound up, not have had their business activities suspended and not be the subject of legal proceedings for any of the foregoing. An undertaking by the bidder should be submitted.
- (d) The Bidder should not be blacklisted/debarred/banned/restricted by any Union Govt./State Govt. / PSU as on date of submission of the Bid. "No-Conviction Certificate" duly signed by authorized signatory signing the bid, should be submitted.
- (e) For detailed Eligibility Criteria of the project, the bidders may refer the Client's Tender document, and it's amendments & corrigenda issued subsequently (if any); Tender details references are as below and the same is also attached along with this RFP.
- (f) Bidder should have successfully executed during the last 7 years ending on 31.01.2024

Similar Works # of minimum value as given below:-

- (1) One (1) similar work costing not less than the 375 Lakhs.
- (2) Two (2) similar works each costing not less than the 235 lakhs
- (3) Three (3) similar works each costing not less than the 188 Lakhs

The Bidder should submit completion certificates mentioning the details of value of completed purchase orders meeting the above criteria from the User Companies on their letter head to similar job as mentioned above are completed and operated. The Completed/Part quantity of the purchase order or purchase contract as on or before 31.01.2024

(2) Annual Turnover: shall meet the minimum prescribed pre-qualification requirement as follows: :-

Zone - East Zone

Annual financial turnover during the last 3 years, ending on March 2024 should Be 141 Lakhs.

The copies of notarized audited balance sheet and profit & loss account showing the Annual Turnover to be submitted along with the un-priced bid as a proof.

In case where audited results for the last financial year , as on the date of submission of the tender are not available, bidders shall submit the audited results of three consecutive financial years preceding the last financial year, and a Certificate signed by CEO/ CFO/ Partner/ Proprietor of the Bidder shall be submitted stating that the financial results of the last financial year of the Company / firm are under audit as on the date of submission of the bid. (Bidders are instructed to check for any new corrigendum/amendments etc. before bidding)

Name of Work(s):- INTEGRATED VIDEO SURVEILLANCE SYSTEM (CCTV) AT HPCL Sites.

Cost: - 3, 12, 96,857 Cr.

Time of completion: - The stipulated time for completion of entire works is 31st March.

Earnest Money Deposit: - 3% of tender value.



9. PRELIMINARY EVALUATION

- 11.1 BECIL shall evaluate the Tender to determine that they are complete, technically complying, no computational errors have been made, required documents as mentioned in the RFP have been furnished, the documents have been properly signed and the response is generally in order
- 11.2 BECIL may waive off any minor infirmity or non-conformity or irregularity in the proposal which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder/OEM/Implementation Agency.
- 11.3 In case only one bid is received or during the Technical Evaluation only one bidder/OEM/Implementation Agency qualifies for the next stage of the bidding process, BECIL reserves the right to accept/reject the bid.
- 11.4 In case two bids are received from the bidder, both the bids will be rejected.

10. EVALUATION PROCESS

- 12.1 No enquiry shall be made by the bidder/OEM/Implementation Agency (s) during the course of evaluation of the RFP, after opening of bid, till final decision is conveyed to the successful bidder/OEM/Implementation Agency(s). However, the Evaluation Committee/its authorized representative and office of BECIL can make any enquiry/ seek clarification from the bidder/ OEM/ Implementation Agency(s), which the bidder/OEM/ Implementation Agency s must furnish within the stipulated time else the bids of such defaulting bidder/OEM/Implementation Agency(s) will be rejected. The proposal will be evaluated on the basis of its content, not its length.
- 12.2 The bidder/OEM/Implementation Agency s' proposals will be evaluated as per the requirements specified in the RFP and adopting the evaluation criteria spelt out in subsequent paras of this RFP document. The bidder/OEM/Implementation Agency are required to submit all required documentation as per evaluation criteria specified in RFP.
- 12.3 Upon verification, evaluation/ assessment, if in case any information furnished by the bidder/OEM/Implementation Agency is found to be Incomplete/incorrect, their bid will be summarily rejected and no correspondence on the same shall be entertained. Submission of false/forged documents will lead to forfeiture of security deposit/EMD and blacklisting of agency for a minimum period of 3 years from participating in BECIL tenders.
- 12.4 BECIL will review the proposal to determine whether the proposals are as per the requirements laid down. Proposals that are not in accordance with these requirements are liable to be disqualified at BECIL's discretion.

12.5 Evaluation of proposals shall be based on:



- 12.5.1 Information contained in the proposal, the documents submitted there to and clarifications provided, if any.
- 12.5.2 Experience and Assessment of the capability of the bidder/ OEM/ Implementation Agency based on past record.
- 12.6 BECIL reserves the right to seek any clarifications on the already submitted bid documents; however, no fresh documents shall be accepted in support of proposals. BECIL also reserves the right to cross verify the information with any agency.
- 12.7 Conditional proposals shall NOT be accepted on any ground and shall be rejected straightway. If any clarification is required by the bidders, the same should be obtained before submission of the proposals.
- 12.8 Even though bidder/OEM/Implementation Agency satisfy the necessary requirements they are subject to disqualification if they have:
 - 12.8.1 Made untrue or false representation in the form, statements required in the RFP document.
 - 12.8.2 Records of poor performance such as abandoning work, not properly completing contract, financial failures or delayed completion.
- 12.9 The Financial Evaluation of the Bidders will be done only for those who qualify the Eligibility Criteria and other mentioned criteria of the RFP.



SECTION –VI ENCLOUSERS AND ANNEXURES

Annexure-A

PRE CONTRACT INTEGRITY PACT

Between

Broadcast Engineering Consultants India Limited (BECIL) hereinafter referred to as "Principal")
And

.....hereinafter referred to as "The Bidder/Contractors"

Preamble:

The Principal intends to award, under laid down organizational procedures, contracts **for.......** The Principal values full compliance with all relevant laws of the land, rule, regulations, economic use of resources and of fairness / transparency in its relations with its Bidder(S) and / Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

- 1.1. The Principal commits itself to take all measures necessary to prevent Corruption and to observe the following principles: -
- a) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or Immaterial benefit which he/she is not legally be entitled to.
- b) The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - c) The Principal will exclude all known prejudiced persons from the process.
- 1.2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Office and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder(s)/ Contractor(s)

- 2.1. The bidder(s) Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
- a) The Bidder(s) Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract/ or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- b) The Bidder(s) Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- c) The Bidder(s) Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s) Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d) The Bidder(s) Contractor(s) of foreign origin shall disclose the name and address of the Agents/ representatives in India, if any. Similarly, the Bidder(s) Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" Shall be disclosed by the Bidder(s) / Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/ representative have to be in Indian Rupees only.
- e) The Bidder(s) Contractor(s) will, when presenting himself, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract/Agreement.
- 2.2. The Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process and exclusion from future contracts

If the Bidder(s) Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s) Contractor(s) from the tender process or take action as per the defined procedure.

Section 4 - Compensation for Damages

4.1. If the Principal has disqualified the contractor from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages Equivalent to Earnest Money

Deposit / Bid Security.

4.2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 – Previous transgression

- 5.1. The Bidder(s) contractor declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the Anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2. If the contractor makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in "Guidelines on Banking of business dealings".

Section 6 – Equal treatment of all Bidders/Contractors/Subcontractors

- 6.1. The Bidder(s) Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact and to submit it to the Principal before contract signing.
- 6.2. The Principal will enter into agreement with identical conditions as this one with all Bidders, Contractors and Subcontractors.
- 6.3. The Principal will disqualify from the tender process all bidder who do not sign this Pact or violate its provisions.

Section 7 – Criminal charges against violating Bidder(s)/ Contractor(s)/Subcontractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor, which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same Chief Vigilance Office.

Section 8 – External Independent Monitor/Monitors

- 8.1. Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 8.2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD of M/s Broadcast Engineering Consultants India Limited (BECIL).
- 8.3. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) with confidentiality.

- 8.4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- 8.5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit nonbinding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 8.6. The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.
- 8.7. If the Monitor has reported to the CMD of the BECIL, a substantiated suspicion of an offence under relevant APC/PC Act, and the Chairman BECIL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Chief Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.8. The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 20 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded. If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by CMD, M/s. Broadcast Engineering Consultants India Limited.

Section 10 – Other provisions

- 10.1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the head office of the Principal, i.e., New Delhi.
- 10.2. Changes and supplements as well as termination notices need to be made in writing. Side agreement have not been made.
- 10.3. If the Contractor is a partnership or a consortium, this agreement must be, signed by all partners or consortium members.
- 10.4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

FOR AND ON BEHALF OF CONTRACTOR

FOR AND ON BEHALF OF PRINCIPAL

Particulars of The Bidder

1.	Name of company/bidder	
2.	Office Address /Telephone No / Fax No / email id / website	
3.	Year of establishment	
4.	Status of the Company/bidder	
5.	Name of Directors	i) ii) iii)
6.	Names of principle person concerned with this work with title and Telephone No / Fax/ Email Id, Etc.	
7.	Whether registered with the registrar of companies /registrar of firms. If so, mention number and date.	i) ii) iii)
8.	In case of change of Name of the Firm, former Name / Names and year/ years of establishment:	
9.	GST registration certificate	
10.	Whether an assessed of income tax. If so, mention permanent account number.	
11.	State Annual turnover of the company/bidder Furnish copies of audited balance sheet and profit & loss account (audited) for the last three years.	
12.	Particulars and place of similar type of works done in a single order and tender amount. (Furnish details in a separate sheet and enclose copy of the employers certificate)	
13.	Specify the maximum value of single work executed in the past three years.	
14.	Status and details of disputes/ litigation/ arbitration, if any.	
15.	Certificate of financial capability / credit facility issued by the bank.	

Signature of	f Autho	rized S	Signato	ry

Place:	
Date:	
Address:	

			Appual Turno	uar 9 Nat worth	Ann	exure – D
			Annual Turno	ver & Net worth		
(7	o be pr	inted on implemen	nting agency's letterhead and	signed by Authorized sig	natory.)	
Bro BE Ful	oadcast CIL Bha II Name II Addre	wan, C-56, A/17, Son of Bidder (Supplients				
	S. No.	Financial Year	Turnover of Bidder	Net worth	Remarks	
	1	2020-21				
	2	2021-22				
	3	2022-23				
		Average				
No	te: The	Audited Balance sh required certificate rejected.	neets only. te from CA with UDIN No. is en	iclosed along with this fo	rm. Certificate withou	ıt UDIN
Pla Da Ad Mo	ice: te: dress: _ obile:	of Authorized Sign				

Performa of letter of Undertaking for Bid Validity

To General Manager Broadcast Engineering Consultants India Limited BECIL Bhawan, C-56, A/17, Sector-62, Noida-201307

Reference: RFP No. <>> dated << 202X>>

I/We hereby submit our Bid and undertake to keep our Bid valid for the period of 180 days from the date of submission of the Bid.

I/We also agree to abide by and fulfill all the terms, conditions of provision of the bid document.

Signature of Authorized Signatory

Place:	 	 _	
Date:	 		
Address:	 	 	
Mobile:			
Email ID:			_

Bid Covering Letter

To General Manager Broadcast Engineering Consultants India Limited BECIL Bhawan, C-56, A/17, Sector-62, Noida-201307

Reference: RFP No.<>> dated << 202X>>

Dear Sir/Madam,

We, the undersigned, offer to provide Systems Implementation solutions to the Purchaser on <Name of the Systems Implementation engagement> with your Expression of Interest dated <insert date>and our Proposal. We are hereby submitting our Proposal, which includes our Technical bid sealed on the <URL of e-Procurement portal> portal.

We hereby declare that all the information and statements made in this Technical bid are true and accept that any misinterpretation contained in it may lead to our disqualification.

We undertake, if our Proposal is accepted, to initiate the Implementation services related to the assignment not later than the date indicated in Fact Sheet.

We agree to abide by all the terms and conditions of the RFP document. We would hold the terms of our bid valid for <180> days as stipulated in the RFP document.

We understand you are not bound to accept any Proposal you receive.

Signature of Authorized Signatory

Place:	
Date:	
Address:	
Mobile:	
Email ID:	

Credentials Summary

S. No.	Project Name	Client Name	Client Type	Project Value (in INR)	Documentary evidence provided (Yes or No)	Project Status (Completed or Ongoing or Withheld)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Signature of Authorized Signatory
Place:
Date:
Address:
Mobile:
Email ID:

Self-Declaration For Non Black Listing

[ON BIDDER'S LETTER HEAD]

Bidder Ref. No
Dated:
То
General Manager
Broadcast Engineering Consultants India Limited
BECIL Bhawan, C-56, A/17, Sector-62, Noida-201307
We, M/s hereby declare that the firm/company namely M/s
, as on the date of bid submission, has not been blacklisted or debarred by any of the Central Government or State Government or any organization under Central/ State Government or any Statutory Authority, or any Public- Sector Undertaking.
M/s has not been found guilty of any criminal offence by any court of law in India or abroad.
M/s, its directors and officers have not been convicted of any criminal offence related to their professional conduct or the making of false statement or misrepresentations as to their qualifications to enter into procurement contract within a period of three years preceding the commencement of the procurement process or have not been otherwise disqualified pursuant to debarment proceedings.
Yours faithfully
For,
Signature of Authorized Signatory
Place:
Date:
Address:
Mobile:
Email ID:

Undertaking Regarding Payment Of GST/ Filing Of GST Return

Ref Date	
To, The Chairman and Managing Director, Broadcast Engineering Consultants India Limited, 56-A/17, Block-C, Sector-62, Noida-201307 (U.P.)	
Subject: Undertaking regarding Payment of GST/ Filing	g of GST Return
Dear Sir,	
we hereby undertake that we will comply with Goods a	roadcast Engineering Consultants India Limited (BECIL), and Services Tax 2017 and subsequent amendment and referred to as GST Act and Rules) wherever we are
required under GST Act and Rules. We will furnish appe	"Tax Invoice" and/or any other Relevant Document as ropriate GST return and pay GST as required under GST edit on timely basis through GST Portal (and/or by any
We hereby certify & undertake that we will not alte uploaded at GST Portal unless approved by BECIL in wri	r, delete or modify the tax invoices and other details ting.
·	BECIL on account of any loss of GST input credit as well enses suffered by BECIL because of any failure on our to Government/Appropriate Authority.
Government/Tax Authorities due to default/delay	t/penalty/other expenses etc. on demand raised by on our part/action, we also authorize BECIL to amount of interest/penalty/tax etc. for the amount so
Signature of Authorized Signatory on behalf of Agency	
Address: Mobile: Email ID:	

Power of Attorney for signing the Bid on Rs. 100 Stamp Paper

1.

2.

KNOW ALL MEN BY THESE PRESENTS,
We "Name of Bidder" do hereby irrevocably constitute, nominate, appoint and authorize, who is presently employed with us and holding the position of "", as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our application for qualification and submission of our bid for the Project "Name of Project" of "" (the "client") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in pre-applications and other conferences and providing information/ responses to the client, representing us in all matters before the client, signing and execution of all contracts including the Agreement and undertakings consequent to acceptance of our bid, and generally dealing with the client in all matters in connection with or relating to or arising out of our bid for the said Project and/or upon award thereof to us and/or till the entering into of the Agreement with the client. The act done by (Name of authorized person) will be binding on the selected bidder.
IN WITNESS WHEREOF WE, (Name of Bidder), THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF Date
For Name of Bidder,

Accepted
Witnesses:
(Notarized)

PRICE BID FORMAT

				Α	В
SI	Item Description	Qty	Units	Lump Sum Price OF REMAINING WORK per Site(inclusive of AMC, Spares etc) as per full Scope of Work (exclusive of GST)	Total
1	Description Of Work	1	Lot		

Final CAMC value after project execution will be in proportion to actual capital project executed at respective sites. CAMC percentage is arrived as per quote submitted by the vendor. The PO for CAMC will be calculated as per actual final executed value of capital portion and will be placed after the expiry of the defect liability period.

TERMS OF PAYMENT:-

Kindly refer the attached HPCL RFP.



Tender Published On: 02-Sep-2021 14:37

Hindustan Petroleum Corporation Limited

D I V C OFF 1				
Basic Information Of Tender				
Title	CCTV UPGRADATION LPG SBU			
Description	CCTV SYSTEM AT 44 LPG INSTALLATIONS			
Tender Type	Public			
Tender Scope	Domestic			
Bid Type	Two Bid			
Evaluation Criteria	Schedule Wise			
Tender Due Date & Time	24-Sep-2021 15:00			
Reverse Auction Applicable	Yes			
Pre Bid Conference Start Date & Time	09-Sep-2021 11:00			
Pre Bid Conference End Date & Time	09-Sep-2021 13:00			
Queries Start Date & Time	03-Sep-2021 15:00			
Quries End Date & Time	16-Sep-2021 15:00			
Un Priced Bid Open Date & Time	24-Sep-2021 15:00			
Purchase Deptt.	PUR DEPT CPO-Elect & Instrumentation			
Fax No.	23030078			
Office Address	Centralised Procurement Office,6th Floor, Petroleum House,17, Jamshedji Tata Road,,,Mumbai,400020,,MH			
TF/EMD Drop Box Address	NA			
Tender Description	CCTV SYSTEM AT 44 LPG INSTALLATIONS			
Notice Inviting Tender				
Currency Type	Tender Fee EMD			
INR	0			

Delivery Terms - Free to Destination location unless specified otherwise. Validity of offer - 120 days from the initial or extended Due Date for submission of Tender whichever is later unless specified otherwise. Liquidated Damages/Price Reduction clause accepted unless specified otherwise.

In case bidder does not deviate from the standard offer validity in on line deviation form, bid's offer validity shall be considered as mentioned above.

In case a Revised priced bid is initiated for this tender, at a later date (eg Technical evaluation stage etc), it shall be incumbent upon the bidder to submit revised bids for the specified items/entire tender. In the absence of revised bids rom the bidder within specified time period, the original bid submitted by the bidder shall not be considered for evaluation.

Organization reserves the right to reveal the contents of the bid documents submitted by the vendor during the witness bid opening process as per prevailing policy of the corporation.

Please quote all the taxes, if applicable, only in percentage terms and not in Per unit(Amount) basis. The Per unit option is provided only to quote for extras like Loading charges, packing charges, TPI charges etc. In case, it is found that you have quoted taxes in amount basis, your bid may be liable for rejection.

HINDUSTAN PETROLEUM CORPORATION LIMITED

(A GOVERNMENT OF INDIA ENTERPRISE)

CENTRAL PROCUREMENT ORGANISATION-MARKETING

9TH FLOOR, A WING – MARATHON FUTUREX BUILDING, LOWER PAREL, MUMBAI - 400 013.

NOTICE INVITING e-TENDER

M/S HPCL is issuing this Public Tender Notice for inviting tender from eligible Indian Bidders as per the following details:

Nature of Job	Tender No	Due Date &Time for Submission
INTEGRATED VIDEO SURVEILLANCE		
SYSTEM (CCTV) AT 44 LPG	21000471-HD-10157	24.09.2021 @ 1500 HRs
INSTALLATIONS		

For details and downloadable Tender documents, log on to HPCL e-procurement website - http://etender.hpcl.co.in/eProc/VendorLoginInput.action or visit HPCL website: www.hindustanpetroleum.com. Revisions, Clarifications, Corrigenda, Addenda and Extension of tender due date, if any, shall be hosted in e-tender website. Bidders should regularly visit this website to keep themselves updated.

DGM - Category Management, CPO, Mumbai



Hindustan Petroleum Corporation Limited

Reverse Auction – Terms & Conditions and Procedure

HPCL proposes to conduct Reverse auction for the items or schedules or on overall basis as specified in the tender. Please go through the Terms & Conditions and Procedure given below and submit your acceptance to the same by signing and uploading this document along with unpriced bid.

Terms & Conditions

- 1. HPCL reserves the right to carryout 'Online Reverse Auction' with techno-commercially accepted bidders for determining the lowest bidder for the requirements mentioned in this tender enquiry. Reverse auction shall be conducted only when there are at least two or more "Techno-commercially" accepted vendors at Technical evaluation stage.
- 2. Online reverse auction shall be conducted by HPCL on a specified date and time. The vendors shall be participating in the reverse auction from their own offices / place of their choice. Internet connectivity shall have to be ensured by the bidders themselves. HPCL shall not be held responsible for local issues, such as loss of connectivity, Internet discontinuity, and discrepancy in browser which may result in non-display of latest bid in client PC.
- 3. In extreme case of Server outage, network outage or failure of Internet connectivity, (or any other unforeseen conditions) from HPCL's end, fax/ E-Mail communication shall have to be made immediately, to concerned purchase officer of HPCL. No such request shall be entertained beyond one hour of the RA closing time. To provide equal opportunity, HPCL may decide to extend the Reverse auction at their discretion, but not as the right of the bidder. The vendors participating in Reverse Auction process shall be kept on standby for 1 Hour after RA closing time.
- 4. HPCL shall investigate the above matter and decision for extension of Reverse Auction shall be based on the merit of the issues pointed out and verified by HPCL and same shall be final and binding on the vendor.
- 5. HPCL shall complete the investigation within two working days of receiving complaint from any of the vendor.
- 6. In case of decision to extend Reverse Auction, intimation mail may go out to all vendors within a day of investigation closure. Vendors shall generally be given intimation, a day in advance before extended Reverse Auction is commenced. The Reverse Auction shall commence from the last saved decrement value and shall be open for period of original duration from commencement.



Hindustan Petroleum Corporation Limited

- 7. Bidders are requested to confirm their willingness to participate in 'Online Reverse Auction' during their bid submission by ensuring compliance to the Terms & Conditions and Procedure specified herewith. Please note that non acceptance to participate in the Reverse Auction process may lead to rejection of the bid without any further evaluation.
- 8. HPCL will pre-decide the commercial loading, if any, on the basis of the taxes & duties quoted by the bidder, and loading on account of commercial deviations, if any. The loading factors shall be displayed in the portal prior to the date scheduled for Reverse Auction Event.
- 9. Bidders are encouraged to understand the Loading factors applied on their bids at the earliest, on getting intimation regarding same. In case of any objection to the applied loading factor same shall be brought to the notice of Purchase officer immediately. No further communication on this ground will be entertained after publishing of Reverse auction.
- 10. As part of Reverse Auction process, the Start Bid price (Leading Bid) shall be specified by HPCL on Reverse Auction Portal. The Lowest of the {Price Bid or the estimate} will be considered as the benchmark price (Start bid price). Please note that such priced bid opening shall be system driven and therefore bidder's identity vis-à-vis quoted price shall be confidential.
- 11. In case of overall evaluation tenders or schedule wise evaluation tender, the Reverse auction shall be conducted on the bottom line, net delivered cost.
- 12. In case of tenders, which are evaluated on Schedule wise or Overall L1 basis, the individual item rates with **get reduced on pro-rated basis** as the decrements are effected during reverse auction event.
- 13. During the Reverse auction event, the taxes which are quoted in percentage basis will get reduced proportionately as the RA progresses. However, Extras like Loading charges/packing charges/TPI which are quoted in per unit basis (amount terms) remains constant as the decrements are effected.
- 14. Vendors shall ensure to quote the **statutory taxes only in percentage basis** and not in amount terms. In case of non-compliance to this clause, bids shall be liable for rejection.
- 15. System shall allow to conduct Reverse Auction on multi-currency tender/bidding. In such cases the basic reverse Auction shall be carried out in INR currency only. However bidders



having submitted bids in any of the following four currencies – USD, EUR, GBP, JPY shall be able to view the basic rates (in original currency) corresponding to contemplated decrement in the "show" screen.

- 16. The exchange rate for converting the INR value to originally quoted currency (USD, EUR, GBP, JPY) shall be the one which was prevailing on the **date of unpriced bid opening** in line with tender condition.
- 17. Reverse auction shall be held for a period of 60 minutes and shall be automatically extended by a further period of 5 minutes in case of receipt of any bid during the last 5 minutes of the auction period. This process shall continue until no bids are received in the last 5 minutes of the auction. Thereafter reverse auction shall get automatically closed. This shall be an automated process.
- 18. Order may be placed on the lowest bidder, emerging out of the reverse auction process and HPCL's decision on award of contract shall be final and binding on all the bidders.
- 19. HPCL reserves the right to further rationalize the prices with lowest bidder for reducing the price at any time before ordering.
- 20. HPCL reserves the right to cancel the reverse auction after event is scheduled but before actual event taking place or after the reverse auction has completed in case of failure or any other reason. The reasons for cancellation shall be conveyed to all vendors.
- 21. In cases where tender is required to be cancelled after opening of priced bid and identification of L1 vendor and Reverse Auction was also part of tender, reasons for cancellation shall be conveyed to all vendors.
- 22. During Reverse Auction Process, if no bids are received within the scheduled/rescheduled date & specified time of the reverse auction, HPCL at its discretion can scrap the reverse auction and proceed with the opening of the Electronic priced bids submitted by the bidders. In such case HPCL shall display the bidder's identity and original rates.
- 23. The bid on the Reverse Auction Portal will be taken as an offer to sell. Bids once made, cannot be cancelled / withdrawn and the bidder shall be bound to sell the material/services at the final bid price, and as per the specifications mentioned in the tender. Should the bidder back out and not make the supplies as per the rates quoted or in case the material supplied/services is not as per specifications mentioned in the tender, HPCL shall take appropriate action as per the terms & conditions mentioned in the tender.



- 24. At the end of the Reverse Auction, HPCL will decide the successful bidder, basis the evaluation criteria specified in the tender. HPCL's decision on award of Contract shall be final and binding on all the Bidders.
- 25. HPCL shall not have any liability to bidders for any interruption or delay in access to the reverse auction portal irrespective of the cause.
- 26. The participation of vendors in the tendering process shall be construed as acceptance to the terms & conditions and procedure for the reverse auction (until and unless the contrary is explicitly mentioned in the deviation sheet). This compliance also shall be deemed as participation in Reverse auction.
- 27. In case a bidder agrees for reverse auction in the un-priced bid but withdraws acceptance any time after tender due date & time, the EMD of such bidder may be forfeited along with rejection of offer at the sole discretion of HPCL.
- 28. Once Auction is started, no communication from vendor shall be entertained unless it is of the nature of any serious issue in the portal.
- 29. The **yellow color back ground** on RA page indicates the due date and time of respective Reverse Auction is over. (*However, this will happen only if the vendor's PC is connected to the HPCL server*). RA shall be concluded after standby period is over and auto generated mail is received by vendor.
- 30. The Bidder shall not involve himself or any of his representatives in Price manipulation of any kind directly or indirectly by communicating with other suppliers / bidders.
- 31. The Bidder shall not divulge either his Bids or any other exclusive details of HPCL to any other party.
- 32. HPCL's decision on award of Contract shall be final and binding on all the Bidders.
- 33. HPCL can decide to extend, reschedule or cancel any Auction. If any changes are made by HPCL after the first posting and the Bidder continues to access the site after that time, it shall be presumed that the bidder has accepted the changes.
- 34. HPCL shall not be responsible for any damages, including damages that result from, but are not limited to negligence. HPCL will not be held responsible for consequential damages, including but not limited to systems problems, inability to use the system, loss of electronic information etc.

Reverse Auction Procedure

- In case HPCL decides to conduct Reverse Auction, the qualified bidders would be communicated on the same thru E-mails about the date and time of the Reverse Auction event. The Reverse auction event shall be conducted in the HPCL e-tender portal under link "Reverse auction".
- 2. Reverse Auction shall be available to Bidder only after two factor authentication. Initially vendor will login to the site <u>etender.hpcl.co.in</u> with his Login Id and password. Thereafter they shall click on the "Reverse auction" link in the portal to view/participate in ongoing/upcoming reverse auctions.
 - 3. Brief procedure to participate in RA:
 - I. Bidders may click on "Reverse Auction document", and download the same to their local PC.
 - II. The downloaded document shall be digitally signed and uploaded after the RA event becomes active". The signed document may be kept ready for upload beforehand.
 - III. Click on the Check box followed by "Participate in Reverse auction".
- 3. HPCL will display Start Bid price i.e., **Bench Mark** price which shall be the **lower** of the {price bids submitted by the bidders on the e-procurement portal i.e. 'Bids opened for RA event' **or** HPCL's in-house estimate}, which shall be visible to all the vendors at the start of the Reverse Auction.
- 4. Identity of bidders never gets disclosed to anyone, during reverse auction process
- 5. HPCL shall specify the minimum amount/percentage by which the bidders can reduce their bids at a time on the Reverse Auction Portal. This amount is referred as the 'bid decrement factor' and shall be specified by HPCL.
- 6. Bidders shall start bidding from this Bench Mark Price. The bidder can bid lower than the prevailing Lowest Bid at any time during the event by one decrement or multiples of the Bid decrement.
- 7. In case the "SUBMIT QUOTE" button is not enabled after a few seconds of clicking, vendors are urged to **Re-Login** to the page for viewing the latest **leading bid** and submit fresh quotes. The process takes less than a few seconds.



- 8. The bidder shall be able to view the following values on his screen along with the other necessary fields in the Reverse Auction:
 - Item-wise Leading Bid in the Auction (Delivered Cost)
 - Bid Placed by bidder (Delivered Cost)
 - Bid value contemplated by bidder before submission(Delivered Cost)
 - 34.8.1. Bidder can reduce his bid repeatedly during the auction period
- 9. Bidders shall be provided information on item wise pro-rated reduction in the rates, for guidance.
- 10. The **confirmed bid** submitted by vendor during the RA process shall always reflect in the "**Previous Bid**" field only (red font). The field "**Current bid**" shall display the contemplated bid value and "**Leading Bid**" shall show the <u>current lowest bid value</u> as submitted by any of the vendors.
- 11. The Closing Price(s) offered by the bidders at the conclusion of the Reverse Auction shall be valid for a minimum period of 30 days or as mentioned in tender, from the date of conclusion of the Reverse Auction.
- 12. After the Reverse auction is over successfully and closed by purchase officer, vendor can witness the lowest rate submitted by other vendors in "Witness bid opening" link.
- 13. In case of Item-wise evaluation tenders, any or all items may undergo Reverse Auction separately at the discretion of HPCL.
- 14. In case of Schedule-wise evaluation tenders, any or all schedules may undergo Reverse Auction separately at the discretion of HPCL.
- 15. In case of **SOR type tenders**, where vendor has quoted a single percentage plus or minus against the offered rate, the decrement shall be applicable on the **bench mark value on base of 100** (i.e. it could be 107 in case of plus 7% or 94 in case of minus 6 percent). This value shall be delivered cost i.e. inclusive of taxes and loading factor.
- 16. HPCL reserves right to conduct single reverse auction for multiple items with separate decrement option.
- 17. Vendor shall have option to participate in multiple reverse auction if it is scheduled at the same time.



- 18. Successful vendor shall be required to submit the final prices digitally signed and uploaded as token of acceptance without any new condition other than those already agreed to before start of auction.
- 19. Vendors may seek telephonic guidance before or during the Reverse auction process from Helpdesk support, between **8.00 AM to 8.00 PM** on any working day, except Sundays and Public holiday.
- 20. The **Helpdesk Phone No** is prominently displayed in the Home page of Eproc Vendor portal http://etender.hpcl.co.in/eProc/VendorLoginInput.action

E-Reverse Auction procedure for POL Transporters Tender

In case the **Reverse auction** is carried out for **POL transport tender**, the <u>following procedure</u>, <u>terms</u> and conditions shall apply over and above the other RA terms and condition. In case of any contradiction between the "<u>RA procedure for POL transport tender</u>" and "<u>RA terms and condition</u> <u>or procedure</u>" the provisions of "<u>RA procedure for POL transport tender</u>" shall supersede the latter.

- I. The Tender for POL transport shall be floated with two covers Technical Bid and Priced Bid.
- II. Bidders will have option to upload their complete truck details in Excel format (converted to pdf) during bid submission.
- III. There will be system based validation to ensure that bidders quote their rate for each sector only within the specified priced band.
- IV. At techno-commercial evaluation stage, user department will be able to accept or reject trucks based on tender criteria. There will be feature to reject bidders also based on tender criteria.
- V. Post completion of Techno-commercial evaluation, there will be option to
 - Open Priced bid and generate Recap, followed by 2nd layer Recap for Truck ranking.
 OR
 - b. Configure Schedule wise Reverse Auction (Separate RA for 12KL and 18KL capacity)
- VI. RA shall commence with benchmark price which is **lower** of the two {Estimated rate or L1 rate}. RA decrement shall start from previous bid of bidder.
- VII. In the proposed RA process, bidder will get to see his quoted rate for each of the line items for a schedule, with option to reduce rate in any of the line items individually or all.
- VIII. Line item wise **Leading Bid**(rate) will be displayed dynamically on the Screen.
- IX. Bidders will **not** be allowed to quote below the **Lower Price band** for each line item, configured in the tender.
- X. Subject to IX above, Bidder will be allowed to bid **lower** than the **leading bid** for each line item of the Schedule and his bid will then become **leading bid** for that line item.



- XI. Additionally, bidder will also get option to submit his bid **lower** than his **Previous bid** for each line item, even if it is **not lower** than the **leading bid** value.
- XII. RA shall be configured for a period of one hour and may get extended by 5 minutes in case any bid **lower** than prevailing **lowest bid** for any line item is received in the last 5 minutes.
- XIII. In case, one of the bidders have already quoted at the lowest of the band for all line items within the first 55 minutes of the RA event, there will be **no extension of RA**, even if bids are submitted in the last 5 minutes of RA event. However, the RA will be open for full one hour for other bidders to quote lower than their previous bid, in order to improve their rank.
- XIV. Bidders will be allowed to <u>match line item wise lowest of the band</u>, even if one of the bidders have previously quoted at the lowest of the band for the line item.
- XV. At the end of Reverse auction, there shall be option to close RA event. In such case, system generated **recap** can be obtained providing the ranking of all bidders.
- XVI. In case, there is no participation from any of the bidders during RA process, there shall be option to cancel the RA event and go for opening of Priced bids followed by System generated Recap.
- XVII. There shall be feature to postpone or extend the RA, based on user requirement or in case of exigency.
- XVIII. The "Set of L1" shall be identified from the **system recap** based on the **net outgo** to the Corporation and the total number of tank trucks required as per the tender.
- XIX. In case the total No of trucks required are lesser than No of trucks offered by Set of L1, the truck sub ranking clause shall be utilized to limit induction of trucks up to tender requirement.
- XX. Post identification of Set of L1 bidders, either of the following process to be carried out with these selected bidders
 - a. Offline **Counter offer** to these bidders to match lowest rate or reduce from their quoted rate.
 - b. **Counter offer** through Online platform, to selected bidders, to match lowest rate or reduce from their quoted rate



Standard Supplement Suppl			Line	Details Of Tender					
Fines carriers for street for the proof of a Cambridge Part Each 2	Srl. No.	Line Description			Quantity	HSN Code		Mandatory	
DESCRIPTION = TYPE FIXED NON FLAME PROOF SECAMERA MANUFACTURER.NA. MODEL NUMBERNA. IN ADDITION TO THIS. SPECIFICATIONS RETORNOR MINTS REPORT (UNWED)	1	Fixed camera Motorized zoom 4K		Each	2		01AAACH1	· · · · · ·	
Freed commended				FACTURER:N/A; MO	DEL NUMBER:N/A; IN ADD	TION TO THIS		TONS	
DESCRIPTION — TYPELID PIANDE CAMBRA MANIFACTURER BOSCH SON AND SERVICE ATTACHED. Fixed Camera FL12 12771-JAMMU LPG PLANT 12671-1771-1771-1771-1771-1771-1771-1771	2	Fixed camera motorized		Each	1	85258020		Yes	
Fixed Cameria FL12		RIPTION => TYPE:HD IP FIXED CA			O/VERINT/HONEYWELL; MO	DDEL NUMBE		IONAL	
DESCRIPTION — IP. NETWORK CCTV. TYPEDAY AND MIGHT FIXED CAMBRA. RECORDING RESOLUTION. PERMISS HID. MAGE MORRESSION AS JOHN FOR General PST STREAM. POCAL INCOMPTION. FINE PERCENT FOR GENERAL POCAL I	3	,		1	17	85258090		Yes	
FLP Endosur Fixed Cumera F12 2171-JAMMU LPG PLANT Each 11 11881/20 Yes	COMP	RESSION:H.264/MPEG-4, TRIPLE S	TREAM; FOCAL LENGTH OF LEN	AMERA; RECORDING S:2.8-12 MM; INGRES	G RESOLUTION:1920X1080 F GS PROTECTION:IP66; VIDE	PIXELS HD; IM O FRAME RAT	IAGE	NIGHT	
NSTITUTE OF MINION AND PELE RESEARCH, APPROVED FLAME PROOF ALUMINA ELECTRICAL ENCLOSURE WITH VALID TEST CERTIFICATES. ALSO PESE ERTHECATION SHALL BE AVAILABLE TECHNICAL SERVERGATION. TYPE OF EX-PROTECTION SEXT DITYS, INSECTION. 2005. 2005. PERSON POLYSTEE CREEMENT OF SEXT DISTORT OF THE PROOF PROVIDED TO THE PROOF PROVIDED TO THE PROOF PROVIDED TO THE PROVIDED TO THE PROOF PROVIDED TO THE PROOF PROVIDED TO THE	4			Each	11			Yes	
INDIGO MANAGEMENT 12171-JAMMU LPG PLANT Each 34 998733 101AAACH1 Yes	INSTITE CERTICLES	FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	EARCH) APPROVED FLAME PROO E; TECHNICAL SPECIFICATION: T GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTF YPE OF EX-PROTECT 79-0:2004, INGRESS I	RICAL ENCLOSURE WITH V FION:EEX-D TYPE, IS/IEC60 P PROTECTION:IP66 IS/IEC	ALID TEST CE 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO	
DESCRIPTION > MANAGEMENT SOFTWARE SUPPLY AND INSTALLATION OF CCTV VMS SOFTWARE FOR CAMERAS LICENSE. SPLYSINSTL OF 55IN LED TV 12171-JAMMU LPG PLANT	5	VIDEO MANAGEMENT		1	1	1	01AAACH1	Yes	
DESCRIPTION >> SUPPLY AND INSTALLATION OF 55 INCH LED TV AS PER SPECIFICATION ATTACHED. NETWORK SWITCH NUMBER OF PORTISS, APPLICATION-OUTDOOR	DESC		TWARE: SUPPLY AND INSTALLAT	TION OF CCTV VMS	SOFTWARE FOR CAMERAS	LICENSE.	TTOBIZQ		
DESCRIPTION => NETWORK SWITCH: NUMBER OF PORTSS: APPLICATION-OUTDOOR	6	SPLY&INSTL OF 55IN LED TV	12171-JAMMU LPG PLANT	Each	1	998734		Yes	
INSTITUTE NUMBER OF PORTS: APPLICATION-OUTDOOR	DESC 7					84733001		Vos	
DESCRIPTION ⇒ SUPPLY AND INSTALLATION OF WEATHER PROOF JUNCTION BOX AS PER TENDER DOCUMENT. GI Pole 8 MT	·	SWITCH,MANAGED,8 PORT			15	04733091		165	
GI POLE 8 MT 12171-JAMMU LPG PLANT Each 25 101AAACH1 118B120 DESCRIPTION	DESC 8	<u> </u>	· ·		12	995461		Yes	
118B1ZQ							1	1	
FIRE TENDER DOCUMENT O INSTALLATION AND COMMISSIONING OF CCTV SYSTEM AND ASSOCIATED ACCESSORIES AS PER THE TERMS AND CONDITIONS DESCRIPTION >> INSTALLATION AND COMMISSIONING OF CCTV SYSTEM AND ASSOCIATED ACCESSORIES AS PER THE TERMS AND CONDITIONS DESCRIPTION >> INSTALLATION AND COMMISSIONING OF CCTV SYSTEM AND ASSOCIATED ACCESSORIES AS PER THE TERMS AND CONDITIONS DESCRIPTION >> INSTALLATION AND COMMISSIONING OF CCTV SYSTEM AND ASSOCIATED ACCESSORIES AS PER THE TERMS AND CONDITIONS DESCRIPTION >> TYPE-HD IP DOME CAMERA; MANUFACTURER:N/A; MODEL NUMBER:N/A; ADDITIONAL INFORMATION:RF AND MFZ LENS PICKUP DESCRIPTION >> TYPE-HD IP DOME CAMERA; MANUFACTURER:N/A; MODEL NUMBER:N/A; ADDITIONAL INFORMATION:RF AND MFZ LENS PICKUP DESCRIPTION >> SUPPLY, INSTALL AND COMMISSIONING OF 12 WAY FLP EXD TYPE MULTI WAY FLAME PROOF AND EXPLOSION PROOF IUNCTION BOX WITH TERMINALS WITH 107 AND DOTTOM TYPE CABLE ENTRIES, LIM 6 CONSTRUCTION, OF 6G CLASS PROTECTION. TEMPERATURE CLASS : 73. STAINLESS TEFL HARDWARE, EARTHING BOLTS, NEOPRENE GASKET, SUITABLE FOR GROUP II A AND II B, CCOE CMRI CERTIFIED AS PER IS 2:148 WITH LATEST MENDAMENTS AND AS PER THE DIRECTION OF ENGINEER; IN-CHARGE JUNCTION BOX SHALL INCLIDE AND AS PER THE DIRECTION OF ENGINEER; IN-CHARGE JUNCTION BOX SHALL INCLIDE AND AS PER THE DIRECTION OF ENGINEER; IN-CHARGE JUNCTION BOX SHALL INCLIDE AND AS PER THE DIRECTION OF ENGINEER; IN-CHARGE JUNCTION BOX SHALL INCLIDE AND AS PER THE DIRECTION OF ENGINEER; IN-CHARGE JUNCTION BOX SHALL INCLIDE AND AS PER THE DIRECTION OF ENGINEER; IN-CHARGE JUNCTION BOX SHALL INCLIDE AND AS PER THE DIRECTION OF ENGINEER; IN-CHARGE JUNCTION BOX SHALL INCLIDE AND AS PER THE DIRECTION OF ENGINEER; IN-CHARGE JUNCTION BOX SHALL INCLIDE AND AS PER SPECIFICATOR SHALL AND AS PER SPECIFICATION SOFTHER RUNGTION BOX PRODUCTION BOX PRODUCTION BOX PRODUCTION BOX SHALL BE AS PER SHALL BY PER SHALL	9					WORDNI FORM	118B1ZQ		
CCTV SYS			A POLE; PART NUMBER:N/A; MAI	NUFACTURER:N/A; F	EQUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS	
Indoor (Dome) 2MP 12171-JAMMU LPG PLANT Each 3 85258020 014AACH1 Yes	10		12171-JAMMU LPG PLANT	Lump Sum	1			Yes	
118B1ZQ				TEM AND ASSOCIAT	ED ACCESSORIES AS PER T	THE TERMS AI	ND CONDITIO	NS	
DEVICE; DETAILED SPECIFICATION SHEET ATTACHED. 2 FLP JUNCTION BOX 12171-JAMMU LPG PLANT Each 4 995461 01AAACH1 178B1ZQ 178	11	Indoor (Dome) 2MP	12171-JAMMU LPG PLANT	Each	3	85258020	01AAACH1 118B1ZQ	Yes	
DESCRIPTION => SUPPLY, INSTALL AND COMMISSIONING OF 12 WAY FLP XD TYPE MULTI WAY FLAME PROOF AND EXPLOSION PROOF JUNCTION BOX ONTH TERMINALS WITH TOP AND BOTTOM TYPE CABLE ENTRIES, LM 6 CONSTRUCTION, 19 66 CLASS PROTECTION, TEMPERATURE CLASS 73, STAINLESS THEEL HARDWARE, EARTHING BOLTS, NEOPRENE GASKET, SUITABLE FOR GROUP II A AND II B, CCOE CMRI CERTIFIED AS PER IS -2148 WITH LATEST MINED MARKE, EARTHING BOLTS, NEOPRENE GASKET, SUITABLE FOR GROUP II A AND II B, CCOE CMRI CERTIFIED AS PER IS -2148 WITH LATEST MINED MARKET SAND AS PER THE DIRECTION OF ENGINEER: IN-CHARGE JUNCTION BOX SHALL INCLUDE NECESSARY TERMINALS FOR SUITABLE ENTRIES. LAMP TYPE TERMINALS OF APPROVED MAKE OR EQUIVALENT SHALL BE PROVIDED FOR ALL JUNCTION BOX SHALL HAVE EXTERNAL ARE THE APPROVAL OF THE DIMENSIONS OF THIS JUNCTION BOX SHALL BE COMPLETE WITH REQUIRED SHORTING LINKS OF LOOP INJOING OP OUT OF CABLES. CONTRACTOR SHALL ARE THE APPROVAL OF THE DIMENSIONS OF THIS JUNCTION BOX FOR ENGINEER. CHARGE JUNCTION BOX SHALL BE COMPLETE WITH REQUIRED SHORTING LINKS OF LOOP INJOING OP OUT OF CABLES. CONTRACTOR SHALL ARE THE APPROVAL OF THE DIMENSIONS OF THIS JUNCTION BOX FOR ENGINEER. CHARGE JUNCTION BOX SHALL HAVE EXTERNAL ARE THE APPROVAL OF THE DIMENSIONS OF THIS JUNCTION BOX FOR ENGINEER. CHARGE JUNCTION BOX SHALL HAVE EXTERNAL ARE THE APPROVAL OF THE DIMENSIONS OF THIS JUNCTION BOX FOR ENTRIES. THE APPROVAL OF THE DIMENSIONS OF THIS JUNCTION BOX SHALL BE COMPLETE WITH A SHALL BE COMPLETED WITH A SHALL BE COMPLET				IODEL NUMBER:N/A	; ADDITIONAL INFORMAT	ION:IRF AND	MFZ LENS PIC	CKUP	
WITH TERMINALS WITH TOP AND BOTTOM TYPE CABLE ENTRIES, LM 6 CONSTRUCTION, TP 66 CLASS PROTECTION, TEMPERATURE CLASS T3, STAINLESS TEEL HARDWARE, EARTHING BOLTS, NEOPRENG GASKET, SUITABLE FOR GROUP II A AND II B, CCOE CAMI CERTIFIED AS PER IS 2-148 WITH LATEST MENDMENTS AND AS PER THE DIRECTION OF ENGINEER. IN-CHARGE JUNCTION BOX SHALL INCUTION BOX SUINCTION BOX SHALL HAVE EXTERNAL LARTH TERMINALS OF APPROVED MAKE OR EQUIVALENT SHALL BE PROVIDED FOR ALL JUNCTION BOX SHALL HAVE EXTERNAL LARTH TERMINAL JUNCTION BOX SHALL BE COMPLETE WITH REQUIRED SHORTING LINKS FOR LOOP INJ.00P OUT OF CABLES. CONTRACTOR SHALL LARTH TERMINAL JUNCTION BOX SHALL BLE COMPLETE WITH REQUIRED SHORTING LINKS FOR LOOP INJ.00P OUT OF CABLES. CONTRACTOR SHALL LARTH TERMINAL JUNCTION BOX SHALL BLE COMPLETE WITH REQUIRED SHORTING LINKS FOR LOOP INJ.00P OUT OF CABLES. CONTRACTOR SHALL LARTH TERMINAL JUNCTION BOX SHALL BLE COMPLETE WITH REQUIRED SHORTING LINKS FOR LOOP INJ.00P OUT OF CABLES. CONTRACTOR SHALL LARTH TERMINALS JUNCTION BOX JUNCH FOR PLAYER STORE AND A PART OF THE DIMENSIONS OF THIS JUNCTION BOX FROM ENGINEER. IN CHARGE. 2 NO 1 1/2 INCH MPT (FOR IR P I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM AND 4 PAIR I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM AND 4 PAIR I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM AND 4 PAIR I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM AND 4 PAIR I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM AND 4 PAIR I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM AND 4 PAIR I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM AND 4 PAIR I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM CABLE), 4 NO 3/4 NCH (FOR 6, P I SQ.MM CABLE), 4 NCH (FOR 6, P I SQ.MM CABLE), 4 NCH (FOR 6, P I SQ.MM CABLE), 4 NCH (FOR 6, P I SQ.M	12	FLP JUNCTION BOX	12171-JAMMU LPG PLANT	Each	4	995461		Yes	
3 3CORE 4SQ MM CBL,ARM,1.1KV,CU, 12171-JAMMU LPG PLANT Meters 3000 01AAACH1 Yes 118B1ZQ DESCRIPTION => SUPPLY OF THE FOLLOWING 1100 VOLTS COPPER CONDUCTOR, XLPE INSULATED, PVC SHEATHED STEL ARMOURED CABLES AND AS PER SPECIFICATIONS OF THIS TENDER, SUPPLY CABLE SIZE: 3 CX 4 SQMM 4 SPLY AND LAYGO F ARMOURED CATE ARMOURED NETWORK CABLE! INNER JACKET:POLYVINYL CHLORIDE2. ARMOURING:GALVANIZED IRO ARMOUREDS, CONDUCTOR DIAMETER:23 AWG4. TEMPERATURE RATING:-200 TO 600 CS. THICKNESS OUTER JACKET:0.85 MM6. APPROVED MAKE. 5 OPTICAL FIBER CABLE, SM, 12 12171-JAMMU LPG PLANT Each 3500 01AAACH1 Yes 118B1ZQ 6 OPTICAL FIBER CABLE; PART NUMBER:N/A; MANUFACTURER:N/A; EQUIPMENT NAME:CCTV SYSTEM; EQUIPMENT MODEL:N/A; AS PER ENDER DOCUMENT 6 CONST OF CABLE TRENCH 12171-JAMMU LPG PLANT Meters 1500 995433 01AAACH1 Yes 118B1ZQ DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM WIDE, 1000 MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 7 GI EARTHING WIRE 8SWG 12171-JAMMU LPG PLANT Meters 350 01AAACH1 Yes 118B1ZQ DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 8 SPLY&LAYG OF 12171-JAMMU LPG PLANT Each 1000 995424 01AAACH1 Yes 118B1ZQ DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-DESCRIPTIO	WITH STEEL AMEN CLAM EARTI TAKE	TERMINALS WITH TOP AND BOT, HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVEH TERMINAL. JUNCTION BOX SHATTE APPROVAL OF THE DIMENS!	TOM TYPE CABLE ENTRIES, LM (NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE D MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	5 CONSTRUCTION, IF FOR GROUP II A ANI JUNCTION BOX SHA L BE PROVIDED FOR LED SHORTING LINK OM ENGINEER-IN-CI	P 66 CLASS PROTECTION, T D II B, CCOE CMRI CERTIFII ALL INCLUDE NECESSARY R ALL JUNCTION BOX. JUNG S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURI ED AS PER IS - TERMINALS I CTION BOX SI OF CABLES. O T (FOR 18 P 1	E CLASS T3, S -2148 WITH LA FOR SUITABL HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4	
PER IS 7098 PART-1 AND AS PER SPECIFICATIONS OF THIS TENDER.SUPPLY CABLE SIZE: 3 CX 4 SQMM SPLY AND LAYG OF ARMOURED CATE ARMOURED CATE DESCRIPTION => SUPPLY AND LAYING OF CATE ARMOURED NETWORK CABLEI. INNER JACKET:POLYVINYL CHLORIDE2. ARMOURING:GALVANIZED IROURED3. CONDUCTOR DIAMETER:23 AWG4. TEMPERATURE RATING:-200 TO 600 C5. THICKNESS OUTER JACKET:0.85 MM6. APPROVED MAKE. OPTICAL FIBER CABLE,SM,12 12171-JAMMU LPG PLANT Each 3500 01AAACH1 118B1ZQ DESCRIPTION => PART NAME:OFC CABLE; PART NUMBER:N/A; MANUFACTURER:N/A; EQUIPMENT NAME:CCTV SYSTEM; EQUIPMENT MODEL:N/A; AS PER TENDER DOCUMENT CONST OF CABLE TRENCH 12171-JAMMU LPG PLANT Meters 1500 995433 01AAACH1 118B1ZQ DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM WIDE, 1000 MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. GIEARTHING WIRE 8SWG 12171-JAMMU LPG PLANT Meters 350 01AAACH1 118B1ZQ DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. B SPLY&LAYG OF UNARMOURED CATE 12171-JAMMU LPG PLANT Each 1000 995424 01AAACH1 18B1ZQ DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN- DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-	13	3CORE 4SQ MM		1			01AAACH1		
4 SPLY AND LAYG OF ARMOURED CAT6 12171-JAMMU LPG PLANT Meters 1500 995424 01AAACH1 118B1ZQ DESCRIPTION => SUPPLY AND LAYING OF CAT6 ARMOURED NETWORK CABLEI. INNER JACKET:POLYVINYL CHLORIDE2. ARMOURING:GALVANIZED IROLRANDURED3. CONDUCTOR DIAMETER:23 AWG4. TEMPERATURE RATING:-200 TO 600 C5. THICKNESS OUTER JACKET:0.85 MM6. APPROVED MAKE. 5 OPTICAL FIBER CABLE,SM,12 12171-JAMMU LPG PLANT CORE DESCRIPTION => PART NAME:OFC CABLE; PART NUMBER:N/A; MANUFACTURER:N/A; EQUIPMENT NAME:CCTV SYSTEM; EQUIPMENT MODEL:N/A; AS PER TENDER DOCUMENT 6 CONST OF CABLE TRENCH 12171-JAMMU LPG PLANT Meters 1500 995433 01AAACH1 18B1ZQ DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM WIDE, 1000 MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 7 GI EARTHING WIRE 8SWG 12171-JAMMU LPG PLANT Meters 350 01AAACH1 18B1ZQ DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 8 SPLY&LAYG OF UNARMOURED CAT6 DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN- DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-						THED STEEL	ARMOURED	CABLES AS	
ARMOURED3. CONDUCTOR DIAMETER:23 AWG4. TEMPERATURE RATING:-200 TO 600 C5. THICKNESS OUTER JACKET:0.85 MM6. APPROVED MAKE. 5 OPTICAL FIBER CABLE,SM,12 12171-JAMMU LPG PLANT Each 3500 01AAACH1 118B1ZQ DESCRIPTION => PART NAME:OFC CABLE; PART NUMBER:N/A; MANUFACTURER:N/A; EQUIPMENT NAME:CCTV SYSTEM; EQUIPMENT MODEL:N/A; AS PER ENDER DOCUMENT 6 CONST OF CABLE TRENCH 12171-JAMMU LPG PLANT Meters 1500 995433 01AAACH1 18B1ZQ DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM WIDE, 1000 MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 7 GI EARTHING WIRE 8SWG 12171-JAMMU LPG PLANT Meters 350 01AAACH1 118B1ZQ DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 8 SPLY&LAYG OF 12171-JAMMU LPG PLANT Each 1000 995424 01AAACH1 118B1ZQ DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-	14	SPLY AND LAYG OF				995424		Yes	
5 OPTICAL FIBER CABLE,SM,12 12171-JAMMU LPG PLANT Each 3500 01AAACH1 118B1ZQ PESCRIPTION => PART NAME:OFC CABLE; PART NUMBER:N/A; MANUFACTURER:N/A; EQUIPMENT NAME:CCTV SYSTEM; EQUIPMENT MODEL:N/A; AS PERTENDER DOCUMENT 6 CONST OF CABLE TRENCH 12171-JAMMU LPG PLANT Meters 1500 995433 01AAACH1 118B1ZQ PESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM WIDE, 1000 MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 7 GI EARTHING WIRE 8SWG 12171-JAMMU LPG PLANT Meters 350 01AAACH1 118B1ZQ PESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 8 SPLY&LAYG OF UNARMOURED CAT6 12171-JAMMU LPG PLANT Each 1000 995424 01AAACH1 118B1ZQ PESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-									
DESCRIPTION => PART NAME:OFC CABLE; PART NUMBER:N/A; MANUFACTURER:N/A; EQUIPMENT NAME:CCTV SYSTEM; EQUIPMENT MODEL:N/A; AS PER TENDER DOCUMENT 6 CONST OF CABLE TRENCH 12171-JAMMU LPG PLANT Meters 1500 995433 01AAACH1 118B1ZQ DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM WIDE, 1000 MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 7 GI EARTHING WIRE 8SWG 12171-JAMMU LPG PLANT Meters 350 01AAACH1 118B1ZQ DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 8 SPLY&LAYG OF UNARMOURED CAT6 12171-JAMMU LPG PLANT Each 1000 995424 01AAACH1 Yes 118B1ZQ DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-	15	OPTICAL FIBER CABLE,SM,12				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	01AAACH1		
6 CONST OF CABLE TRENCH 12171-JAMMU LPG PLANT Meters 1500 995433 01AAACH1 18B1ZQ DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM WIDE, 1000 MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 7 GI EARTHING WIRE 8SWG 12171-JAMMU LPG PLANT Meters 350 01AAACH1 118B1ZQ DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 8 SPLY&LAYG OF UNARMOURED CAT6 12171-JAMMU LPG PLANT Each 1000 995424 01AAACH1 118B1ZQ DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-		RIPTION => PART NAME:OFC CA	BLE; PART NUMBER:N/A; MANUF	FACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI		V/A; AS PER	
MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 7 GI EARTHING WIRE 8SWG 12171-JAMMU LPG PLANT Meters 350 014AACH1 118B1ZQ 118B1ZQ DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 8 SPLY&LAYG OF UNARMOURED CAT6 12171-JAMMU LPG PLANT Each 1000 995424 01AAACH1 118B1ZQ DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-	16		12171-JAMMU LPG PLANT	Meters	1500	995433		Yes	
7 GI EARTHING WIRE 8SWG 12171-JAMMU LPG PLANT Meters 350 01AAACH1 118B1ZQ DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 8 SPLY&LAYG OF UNARMOURED CAT6 12171-JAMMU LPG PLANT Each 1000 995424 01AAACH1 118B1ZQ DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-	DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM WIDE, 1000 MM DEPTH, CABLE ROUTE MARKER-GALVANIZED.								
DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 8 SPLY&LAYG OF UNARMOURED CAT6 12171-JAMMU LPG PLANT Each 1000 995424 01AAACH1 18B1ZQ DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-	17			Meters	350			Yes	
UNARMOURED CAT6 118B1ZQ DESCRIPTION => PROVIDING AND LAYING AMP CAT 6 CABLE FOR LAN WIRING (D-LINK/EQUIVALEN MAKES AS PER INSTRUCTION OF ENGINEER-IN-	DESC				S FOR LOOP EARTHING AS			1	
	18		12171-JAMMU LPG PLANT	Each	1000	995424		Yes	
			YING AMP CAT 6 CABLE FOR LAN	N WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-	

19	HARD DISK DRIVE per TB cost	12171-JAMMU LPG PLANT	Each	60		01AAACH1 118B1ZQ	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
20	Fixed Camera FL12	12203-HOSHIARPUR LPG	Each	14	85258090	03AAACH1 118B1ZM	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
21	FLP Enclosur Fixed Camera F12	12203-HOSHIARPUR LPG	Each	7		03AAACH1 118B1ZM	Yes
INSTI CERT	RIPTION => PART NAME:FLAMEF TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	ARCH) APPROVED FLAME PROOF ; TECHNICAL SPECIFICATION: TY	F ALUMINA ELECTR YPE OF EX-PROTECT	ICAL ENCLOSURE WITH V. ION:EEX-D TYPE, IS/IEC600	ALID TEST CE 079-1:2007, ZO	ERTIFICATES. NE	ALSO PESO
POWE	ER COATING; EARTHLING:INTER		CABLE ENTRY: AS	PER REQUIRE; HARDWARE	E: STAINLESS	STEEL	
22	Fixed camera motorized zoom2MP		Each	2	85258020	118B1ZM	Yes
INFOR	RIPTION => TYPE:HD IP FIXED CA RMATION:2MP,WITH MOTORIZED I	ZOOM; AS PER SPECIFICATION S	HEET ATTACHED.	, T	I	<u> </u>	
23	Indoor (Dome) 2MP	12203-HOSHIARPUR LPG	Each	3	85258020	03AAACH1 118B1ZM	Yes
	RIPTION => TYPE:HD IP DOME CA CE; DETAILED SPECIFICATION SH		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	MFZ LENS PIC	CKUP
24	Fixed camera Motorized zoom 4K	12203-HOSHIARPUR LPG	Each	3		03AAACH1 118B1ZM	Yes
	RIPTION => TYPE:FIXED NON FLATIONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TONS
25	Fixed Camera FL50	12203-HOSHIARPUR LPG	Each	9	85258090	03AAACH1 118B1ZM	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS				AGE	NIGHT
26	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12203-HOSHIARPUR LPG	Meters	4000		03AAACH1 118B1ZM	Yes
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS
27	OPTICAL FIBER CABLE,SM,12 CORE	12203-HOSHIARPUR LPG	Each	4000		03AAACH1 118B1ZM	Yes
	RIPTION => PART NAME:OFC CAR	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPME	ENT MODEL:N	I/A; AS PER
28	SPLY AND LAYG OF ARMOURED CAT6	12203-HOSHIARPUR LPG	Meters	1000	995424	03AAACH1 118B1ZM	Yes
	RIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER						
29	GI EARTHING WIRE 8SWG	12203-HOSHIARPUR LPG	Meters	1500		03AAACH1 118B1ZM	Yes
DESC 30	RIPTION => PROVIDING AND FIX SPLY&LAYG OF	ING 8 SWG DIA G.I. WIRE ON SUR 12203-HOSHIARPUR LPG	FACE OR IN RECESS	FOR LOOP EARTHING AS 1	REQUIRED. 995424	03AAACH1	Yes
30		12203-11031 HARFOR LFG	Lacii	1000	333424	118B1ZM	165
DEGG	UNARMOURED CAT6	I CONTRACTOR OF THE PORT OF TH	THE PLANT OF THE PARTY OF THE P	OVWILL END A LUCE A G DED	D IOTED I IOTE O	_	ED DI
CHAR	UNARMOURED CAT6 RIPTION => PROVIDING AND LA	YING AMP CAT 6 CABLE FOR LAN	, T	QUIVALEN MAKES AS PER	INSTRUCTIO	_	ER-IN-
	UNARMOURED CAT6 RIPTION => PROVIDING AND LA	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E)	QUIVALEN MAKES AS PER	INSTRUCTION 995433	N OF ENGINE	Yes
CHAR 31 DESC	UNARMOURED CAT6 RIPTION => PROVIDING AND LAY GE)	12203-HOSHIARPUR LPG BLE TRENCH: EXCAVATION, SAN	Meters	1000	995433	03AAACH1 118B1ZM	Yes
CHAR 31 DESC	UNARMOURED CAT6 RIPTION => PROVIDING AND LATGE) CONST OF CABLE TRENCH RIPTION => UNDERGROUND-CAI	12203-HOSHIARPUR LPG BLE TRENCH: EXCAVATION, SAN	Meters	1000	995433	03AAACH1 118B1ZM	Yes
CHAR 31 DESC MM D 32 DESC	UNARMOURED CAT6 RIPTION => PROVIDING AND LA'GE) CONST OF CABLE TRENCH RIPTION => UNDERGROUND-CAIEPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH;	12203-HOSHIARPUR LPG BLE TRENCH: EXCAVATION, SAN ALVANIZED. 12203-HOSHIARPUR LPG NUMBER OF PORTS:8; APPLICATI	Meters D FILLING, BRICK L Each ON:OUTDOOR	1000 AYING, BACKFILLING AND	995433 COMPACTIO 84733091	03AAACH1 118B1ZM 0N, 1800 MM W 03AAACH1 118B1ZM	Yes VIDE, 1000 Yes
31 DESC MM D 32	UNARMOURED CAT6 RIPTION => PROVIDING AND LA'GE) CONST OF CABLE TRENCH RIPTION => UNDERGROUND-CAIEPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH,MANAGED,8 PORT	12203-HOSHIARPUR LPG BLE TRENCH: EXCAVATION, SAN ALVANIZED. 12203-HOSHIARPUR LPG	Meters D FILLING, BRICK L	1000 AYING, BACKFILLING AND	995433 COMPACTIO	03AAACH1 118B1ZM DN, 1800 MM W	Yes VIDE, 1000
DESC MM D 32 DESC 33	UNARMOURED CAT6 RIPTION => PROVIDING AND LA'GE) CONST OF CABLE TRENCH RIPTION => UNDERGROUND-CAIEPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH;	12203-HOSHIARPUR LPG BLE TRENCH: EXCAVATION, SAN ALVANIZED. 12203-HOSHIARPUR LPG NUMBER OF PORTS:8; APPLICATION	Meters D FILLING, BRICK L Each ON:OUTDOOR Each	1000 AYING, BACKFILLING AND 17	995433 COMPACTIO 84733091	03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 03AAACH1	Yes VIDE, 1000 Yes
DESC 33 DESC 33 DESC 34 DESC WITH STEEL AMEN CLAM EART TAKE	UNARMOURED CAT6 RIPTION => PROVIDING AND LA'GE) CONST OF CABLE TRENCH RIPTION => UNDERGROUND-CAIEPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; I JUNCTION BOX RIPTION => SUPPLY AND INSTAL	12203-HOSHIARPUR LPG BLE TRENCH: EXCAVATION, SAN ALVANIZED. 12203-HOSHIARPUR LPG LATION OF WEATHER PROOF JU 12203-HOSHIARPUR LPG LATION OF WEATHER PROOF JU 12203-HOSHIARPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM ENCOPREDE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BLC OMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	Meters D FILLING, BRICK L Each ON:OUTDOOR Each NCTION BOX AS PERE Each FLP EXD TYPE MULTONSTRUCTION, IP FOR GROUP II A AND IUNCTION BOX SHAL BE PROVIDED FOR BOX SHAL BE PROVIDED FOR CONTING LINK DM ENGINEER-IN-CH	1000 AYING, BACKFILLING AND 17 15 R TENDER DOCUMENT. 2 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI 01 IB, CCOE CMRI CERTIFIE LLI INCLUDE NECESSARY ALL JUNCTION BOX, JUNC S FOR LOOP IN/LOOP OUT 14 ARGE. 2 NO 1 1/2 INCH NP	995433 P COMPACTION 84733091 995461 995461 P EXPLOSION EMPERATURE P ETION BOX SE P TION BOX SE OF CABLES. CO F (FOR 18 P I)	03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM PROOF JUNC 6 CLASS T3, S3 2148 WITH LA FOR SUITABLI MALL HAVE ES	Yes Yes Yes Yes Yes TION BOX FAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
DESC 33 DESC 33 DESC 34 DESC WITH STEEL AMEN CLAM EART TAKE	UNARMOURED CAT6 RIPTION => PROVIDING AND LA'GE) CONST OF CABLE TRENCH RIPTION => UNDERGROUND-CAIEPTH, CABLE ROUTE MARKER-G, NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; JUNCTION BOX RIPTION => SUPPLY AND INSTALED FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL ANTERMINALS WITH TOP AND BOT AND	12203-HOSHIARPUR LPG BLE TRENCH: EXCAVATION, SAN ALVANIZED. 12203-HOSHIARPUR LPG LATION OF WEATHER PROOF JU 12203-HOSHIARPUR LPG LATION OF WEATHER PROOF JU 12203-HOSHIARPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM ENCOPREDE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BLC OMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	Meters D FILLING, BRICK L Each ON:OUTDOOR Each NCTION BOX AS PERE Each FLP EXD TYPE MULTONSTRUCTION, IP FOR GROUP II A AND IUNCTION BOX SHAL BE PROVIDED FOR BOX SHAL BE PROVIDED FOR CONTING LINK DM ENGINEER-IN-CH	1000 AYING, BACKFILLING AND 17 15 R TENDER DOCUMENT. 2 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI 01 IB, CCOE CMRI CERTIFIE LLI INCLUDE NECESSARY ALL JUNCTION BOX, JUNC S FOR LOOP IN/LOOP OUT 14 ARGE. 2 NO 1 1/2 INCH NP	995433 P COMPACTION 84733091 995461 995461 P EXPLOSION EMPERATURE P ETION BOX SE P TION BOX SE OF CABLES. CO F (FOR 18 P I)	03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM PROOF JUNC'S 2 CLASS T3, ST 2148 WITH LA FOR SUITABLI IALL HAVE E. SQ.MM CABL RMINALS (TB	Yes Yes Yes Yes Yes TION BOX FAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
DESCOMENT TAKE INCH	UNARMOURED CAT6 RIPTION => PROVIDING AND LA' GE) CONST OF CABLE TRENCH RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G, NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT LHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIRECT IP TYPE TERMINALS OF APPROVE H TERMINAL JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S	12203-HOSHIARPUR LPG BLE TRENCH: EXCAVATION, SAN ALVANIZED. 12203-HOSHIARPUR LPG LATION OF WEATHER PROOF JU 12203-HOSHIARPUR LPG LATION OF WEATHER PROOF JU 12203-HOSHIARPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 I NEOPRENE GASKET, SUITABLE 1 TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BL OM SOF THIS JUNCTION BOX FROM CABLE), 6 NOS 1/2 INCH (F	Meters D FILLING, BRICK L Each ON:OUTDOOR Each NCTION BOX AS PER Each FLP EXD TYPE MULTI CONSTRUCTION, IP FOR GROUP II A AND INCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CHOR 2 P 1 SQ.MM AND Each	1000 AYING, BACKFILLING AND 17 15 R TENDER DOCUMENT. 2 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI 01 IB, CCOE CMRI CERTIFIE ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT 61 ARGE. 2 NO 1 1/2 INCH NP 01 P 1 SQ.MM CABLE) NPT 24	995433 90 COMPACTION 84733091 995461 995461 EXPLOSION EMPERATURE FOR AS PER IS- FERMINALS FOR CABLES OF CABLES OF (FOR IS P) ENTRY. 75 TE	03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM PROOF JUNCE 6 CLASS T3, S3 2148 WITH LA OR SUITABLE HALL HAVE E: ONTRACTOR SQ.MM CABL RMINALS (TB 03AAACH1 118B1ZM	Yes Yes Yes Yes Yes Yes Your and the state of the s
DESCOMENT TAKE INCH	UNARMOURED CAT6 RIPTION => PROVIDING AND LA'GE) CONST OF CABLE TRENCH RIPTION => UNDERGROUND-CAIEPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; I JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AND TERMINALS WITH TOP AND BOT'. HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIRECTORY THE PREMINALS OF APPROVEN TERMINAL. JUNCTION BOX SHATTER APPROVAL OF THE DIMENSI (FOR 6, P 1 SQ.MM AND 4 PAIR 1 SECONDERS) GI POLE 8 MT RIPTION => PART NAME:CAMER.	12203-HOSHIARPUR LPG BLE TRENCH: EXCAVATION, SAN ALVANIZED. 12203-HOSHIARPUR LPG LATION OF WEATHER PROOF JU 12203-HOSHIARPUR LPG LATION OF WEATHER PROOF JU 12203-HOSHIARPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 I NEOPRENE GASKET, SUITABLE 1 TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BL OM SOF THIS JUNCTION BOX FROM CABLE), 6 NOS 1/2 INCH (F	Meters D FILLING, BRICK L Each ON:OUTDOOR Each NCTION BOX AS PER Each FLP EXD TYPE MULTI CONSTRUCTION, IP FOR GROUP II A AND INCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CHOR 2 P 1 SQ.MM AND Each	1000 AYING, BACKFILLING AND 17 15 R TENDER DOCUMENT. 2 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI 01 IB, CCOE CMRI CERTIFIE ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT 61 ARGE. 2 NO 1 1/2 INCH NP 01 P 1 SQ.MM CABLE) NPT 24	995433 90 COMPACTION 84733091 995461 995461 EXPLOSION EMPERATURE FOR AS PER IS- FERMINALS FOR CABLES OF CABLES OF (FOR IS P) ENTRY. 75 TE	03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM PROOF JUNCE 6 CLASS T3, S3 2148 WITH LA OR SUITABLE HALL HAVE E: ONTRACTOR SQ.MM CABL RMINALS (TB 03AAACH1 118B1ZM	Yes Yes Yes Yes Yes Yes Your and the state of the s
DESCOMM D 32 DESCO 33 DESCO 34 DESCO WITH STEEL AMEN CLAM EART TAKE INCH 35 DESCO D	UNARMOURED CAT6 RIPTION => PROVIDING AND LA'GE) CONST OF CABLE TRENCH RIPTION => UNDERGROUND-CAIEPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; I JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AND TERMINALS WITH TOP AND BOT INDENTS AND AS PER THE DIRECTORY THE PRIMINALS OF APPROVEN TERMINALS OF APPROVEN TERMINAL JUNCTION BOX SHATTER APPROVAL OF THE DIMENSING FOR 6, P 1 SQ.MM AND 4 PAIR 1 SECONDER DOWNERS AND THE APPROVAL OF THE DIMENSING FOR 6, P 1 SQ.MM AND 4 PAIR 1 SECONDER DOWNERS AND THE APPROVAL OF THE DIMENSING FOR 6, P 1 SQ.MM AND 4 PAIR 1 SECONDER DOWNERS AND THE APPROVAL OF THE DIMENSING FOR 6, P 1 SQ.MM AND 4 PAIR 1 SECONDER DOWNERS AND THE APPROVAL OF THE DIMENSING FOR 6, P 1 SQ.MM AND 4 PAIR 1 SECONDER DOWNERS AND THE APPROVAL OF THE DIMENSING FOR 6 PAIR 1 SQ.MM AND 5 PAIR 1 SECONDER DOWNERS AND THE APPROVAL OF THE DIMENSING FOR 6 PAIR 1 SQ.MM AND 5 PA	12203-HOSHIARPUR LPG BLE TRENCH: EXCAVATION, SAN ALVANIZED. 12203-HOSHIARPUR LPG NUMBER OF PORTS:8; APPLICATI 12203-HOSHIARPUR LPG LATION OF WEATHER PROOF JU 12203-HOSHIARPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE D MAKE OR EQUIVALENT SHALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FROM CABLE), 6 NOS 1/2 INCH (F) 12203-HOSHIARPUR LPG A POLE; PART NUMBER:N/A; MAN 12203-HOSHIARPUR LPG	Meters D FILLING, BRICK L Each ON:OUTDOOR Each NCTION BOX AS PERE Each TLP EXD TYPE MULT CONSTRUCTION, IP OR GROUP II A ANI JUNCTION BOX SHA LBE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF OR 2 P 1 SQ.MM ANI Each RUFACTURER:N/A; E	1000 AYING, BACKFILLING AND 17 15 R TENDER DOCUMENT. 2 II WAY FLAME PROOF AND 66 CLASS PROTECTION, TI 66 IB, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC 8 FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP 1 P I SQ.MM CABLE) NPT 24 QUIPMENT NAME:CCTV SY 60	995433 COMPACTIO 84733091 995461 995461 DEXPLOSION EMPERATURE ED AS PER IS - TERMINALS FOR IS - TERMINALS FOR CABLES. COT (FOR 18 P 1 ENTRY. 75 TE	03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 1118B1ZM	Yes VIDE, 1000 Yes Yes Yes TION BOX TAINLESS ATTEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4)). Yes EL:N/A; AS Yes
DESCOMM D 32 DESCO 33 DESCO 34 DESCO WITH STEEL AMEN CLAM EART TAKE INCH 35 DESCO D	UNARMOURED CAT6 RIPTION => PROVIDING AND LA' GE) CONST OF CABLE TRENCH RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G, NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; JUNCTION BOX RIPTION => SUPPLY, INSTALL AN FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT JHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIRECT PTYPE TERMINALS OF APPROVE H TERMINAL JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S GI POIE 8 MT RIPTION => PART NAME:CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => SUPPLY, INSTALLAT	12203-HOSHIARPUR LPG BLE TRENCH: EXCAVATION, SAN ALVANIZED. 12203-HOSHIARPUR LPG NUMBER OF PORTS:8; APPLICATI 12203-HOSHIARPUR LPG LATION OF WEATHER PROOF JU 12203-HOSHIARPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE D MAKE OR EQUIVALENT SHALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FROM CABLE), 6 NOS 1/2 INCH (F) 12203-HOSHIARPUR LPG A POLE; PART NUMBER:N/A; MAN 12203-HOSHIARPUR LPG	Meters D FILLING, BRICK L Each ON:OUTDOOR Each NCTION BOX AS PERE Each TLP EXD TYPE MULT CONSTRUCTION, IP OR GROUP II A ANI JUNCTION BOX SHA LBE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF OR 2 P 1 SQ.MM ANI Each RUFACTURER:N/A; E	1000 AYING, BACKFILLING AND 17 15 R TENDER DOCUMENT. 2 II WAY FLAME PROOF AND 66 CLASS PROTECTION, TI 66 IB, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC 8 FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP 1 P I SQ.MM CABLE) NPT 24 QUIPMENT NAME:CCTV SY 60	995433 COMPACTIO 84733091 995461 995461 DEXPLOSION EMPERATURE ED AS PER IS - TERMINALS FOR IS - TERMINALS FOR CABLES. COT (FOR 18 P 1 ENTRY. 75 TE	03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 1118B1ZM	Yes VIDE, 1000 Yes Yes Yes TION BOX TAINLESS ATTEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4)). Yes EL:N/A; AS Yes
DESC MM D 32 DESC 33 DESC 34 DESC WITH STEEL AMEN CLAM EART TAKE INCH 35 DESC PER T 36 DESC AS PE	UNARMOURED CAT6 RIPTION => PROVIDING AND LA'GE) CONST OF CABLE TRENCH RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G, NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; JUNCTION BOX RIPTION => SUPPLY, INSTALL AN FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT JHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIRECT PTYPE TERMINALS OF APPROVE H TERMINAL JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S GI POIE 8 MT RIPTION => PART NAME:CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	12203-HOSHIARPUR LPG BLE TRENCH: EXCAVATION, SAN ALVANIZED. 12203-HOSHIARPUR LPG LATION OF WEATHER PROOF JU 12203-HOSHIARPUR LPG LATION OF WEATHER PROOF JU 12203-HOSHIARPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I L'TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BLUBE OF OTHIS JUNCTION BOX FROM CABLE), 6 NOS 1/2 INCH (F) 12203-HOSHIARPUR LPG A POLE; PART NUMBER:N/A; MAN 12203-HOSHIARPUR LPG ION, TESTING AND COMMISSION	Meters D FILLING, BRICK L Each ON:OUTDOOR Each NCTION BOX AS PERE Each FLP EXD TYPE MULTON TYPE MULTON BOX SHALL BE PROVIDED FOR GROUP II A AND HOLD HOLD FOR STRUCTION BOX SHALL BE PROVIDED FOR STRUCTION BOX SHALL BE PROVIDED FOR 2 P 1 SQ.MM AND EACH EACH UFACTURER:N/A; E Each ING OF HDD/NAS FOR EACH	1000 AYING, BACKFILLING AND 17 15 R TENDER DOCUMENT. 2 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI 01 IB, CCOE CMRI CERTIFIE LLI INCLUDE NECESSARY ALL JUNCTION BOX, JUNC S FOR LOOP IN/LOOP OUT 14 ARGE. 2 NO 1 1/2 INCH NPT 1 P 1 SQ.MM CABLE) NPT 24 QUIPMENT NAME:CCTV SY 60 DR STORAGE OF DATA FRO	995433 COMPACTIO 84733091 995461 995461 D EXPLOSION ED AS PER IS-FERMINALS FITION BOX SFITION BOX SFITION BOX STITION BOX	03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM 03AAACH1 118B1ZM PROOF JUNCE CLASS T3, S3 2148 WITH LA OR SUITABLI HALL HAVE E: ONTRACTOR SQ.MM CABL RMINALS (TB 03AAACH1 118B1ZM PMENT MODE 03AAACH1 118B1ZM 03AAACH1 1118B1ZM 03AAACH1	Yes VIDE, 1000 Yes Yes Yes Yes Yes Yes Yes Yes Yes L:N/A; AS Yes OF 90 DAYS

			1	T			
39	INSTLN COMMNG TESTING CCTV SYS	12203-HOSHIARPUR LPG	Lump Sum	1		03AAACH1 118B1ZM	Yes
	RIPTION => INSTALLATION AND IONED IN THE TENDER ATTACHN		TEM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS A	ND CONDITIO	NS
40	Fixed Camera FL12	12215-Bhatinda Bottling Plant	Each	20	85258090	03AAACH1 118B1ZM	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S' N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LEN					NIGHT
41	PTZ CAMERA	12215-Bhatinda Bottling Plant	Each	1		03AAACH1 118B1ZM	Yes
	RIPTION => TYPE:PTZ NON FLAM	IEPROOF CAMERA; MANUFACTU	RER:N/A; MODEL N	UMBER:N/A; IN ADDITION	TO THIS, SPEC	CIFICATIONS :	MENTIONED
42	FLP Enclosur Fixed Camera F12	12215-Bhatinda Bottling Plant	Each	6		03AAACH1 118B1ZM	Yes
INSTI CERTI CLASS	RIPTION => PART NAME:FLAMEF I'UTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; SER COATING; EARTHLING:INTER	ARCH) APPROVED FLAME PROD ; TECHNICAL SPECIFICATION: T' GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 0529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
43	Fixed camera motorized zoom2MP	12215-Bhatinda Bottling Plant	Each	2	85258020	03AAACH1 118B1ZM	Yes
	RIPTION => TYPE:HD IP FIXED CA			/VERINT/HONEYWELL; MC	DEL NUMBE	R:N/A; ADDIT	IONAL
44	Indoor (Dome) 2MP	12215-Bhatinda Bottling Plant	Each	3	85258020	03AAACH1 118B1ZM	Yes
	RIPTION => TYPE:HD IP DOME CACE; DETAILED SPECIFICATION SHI		IODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	MFZ LENS PIC	CKUP
45	Fixed camera Motorized zoom 4K		Each	4		03AAACH1 118B1ZM	Yes
	RIPTION => TYPE:FIXED NON FLA		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS		TIONS
46	IONED IN TENDER MUST BE FOLI Fixed Camera FL50	12215-Bhatinda Bottling Plant	Each	11	85258090	03AAACH1 118B1ZM	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S' N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LEN				IAGE	NIGHT
47	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12215-Bhatinda Bottling Plant	Meters	5500		03AAACH1 118B1ZM	Yes
	RIPTION => SUPPLY OF THE FO				THED STEEL	ARMOURED	CABLES AS
48	OPTICAL FIBER CABLE,SM,12 CORE	12215-Bhatinda Bottling Plant	Each	5500		03AAACH1 118B1ZM	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	FACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	V/A; AS PER
49	SPLY AND LAYG OF ARMOURED CAT6	12215-Bhatinda Bottling Plant	Meters	3000	995424	03AAACH1 118B1ZM	Yes
	RIPTION => SUPPLY AND LAYING URED3. CONDUCTOR DIAMETER						
50	GI EARTHING WIRE 8SWG	12215-Bhatinda Bottling Plant	Meters	1600		03AAACH1 118B1ZM	Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR	RFACE OR IN RECESS	FOR LOOP EARTHING AS	REQUIRED.		
51	SPLY&LAYG OF UNARMOURED CAT6	12215-Bhatinda Bottling Plant	Each	1200	995424	03AAACH1 118B1ZM	Yes
DESC CHAR	RIPTION => PROVIDING AND LAY GE)	YING AMP CAT 6 CABLE FOR LAN	N WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
52	CONST OF CABLE TRENCH	12215-Bhatinda Bottling Plant	Meters	2000	995433	03AAACH1 118B1ZM	Yes
	RIPTION => UNDERGROUND-CAE EPTH, CABLE ROUTE MARKER-GA		D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIC	ON, 1800 MM V	VIDE, 1000
53	NETWORK SWITCH,MANAGED,8 PORT	12215-Bhatinda Bottling Plant	Each	16	84733091	03AAACH1 118B1ZM	Yes
	RIPTION => NETWORK SWITCH; I	·		T.,			T.,
54	JUNCTION BOX	12215-Bhatinda Bottling Plant	Each	12	995461	03AAACH1 118B1ZM	Yes
DESC 55	RIPTION => SUPPLY AND INSTAL		NCTION BOX AS PEI	R TENDER DOCUMENT.	995461	034440114	Yes
	FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN	12215-Bhatinda Bottling Plant				03AAACH1 118B1ZM	
WITH STEEL AMEN CLAM EART TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT LHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6,P 1 SQ.MM AND 4 PAIR 1 S	FOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE ID MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR ONS OF THIS JUNCTION BOX FRO	5 CONSTRUCTION, IP FOR GROUP II A ANI JUNCTION BOX SHA L BE PROVIDED FOR LED SHORTING LINK OM ENGINEER-IN-CF	P 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFII LLL INCLUDE NECESSARY A ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURED AS PER IS - FERMINALS F CTION BOX SF OF CABLES. C F (FOR 18 P 1	E CLASS T3, S' -2148 WITH LA FOR SUITABLE HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
56	GI Pole 8 MT	12215-Bhatinda Bottling Plant	Each	35		03AAACH1 118B1ZM	Yes
	RIPTION => PART NAME:CAMERA ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	EQUIPMENT NAME:CCTV S	YSTEM; EQUI		EL:N/A; AS
57	HARD DISK DRIVE per TB cost	12215-Bhatinda Bottling Plant	Each	80		03AAACH1 118B1ZM	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F		OF 90 DAYS
58	55 inch LED TV	12215-Bhatinda Bottling Plant	Each	1	998734	03AAACH1 118B1ZM	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS F	PER SPECIFICATION	ATTACHED.			

59	VIDEO MANAGEMENT SOFTWARE	12215-Bhatinda Bottling Plant	Each	51	998733	03AAACH1 118B1ZM	Yes
DESC	RIPTION => MANAGEMENT SOFT	WARE: SUPPLY AND INSTALLAT	ION OF CCTV VMS S	SOFTWARE FOR CAMERAS	LICENSE.		
60	INSTLN COMMNG TESTING CCTV SYS	12215-Bhatinda Bottling Plant	Lump Sum	1		03AAACH1 118B1ZM	Yes
	RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN		EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
61	Fixed Camera FL12	12204-JIND LPG	Each	14	85258090	06AAACH1 118B1ZG	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S' N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
62	FLP Enclosur Fixed Camera F12	12204-JIND LPG	Each	4		06AAACH1 118B1ZG	Yes
INSTI CERTI CLASS	RIPTION => PART NAME:FLAME TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	ARCH) APPROVED FLAME PROOF TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V. TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 0529-1:2001; P	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
POWE 63	DER COATING; EARTHLING:INTER	NAL -01 NO. EXTERNAL -02 NOS.; 12204-JIND LPG	CABLE ENTRY: AS	PER REQUIRE; HARDWARE 5	85258020	O6AAACH1	Yes
	zoom2MP RIPTION => TYPE:HD IP FIXED CA					118B1ZG	
INFOR	RMATION:2MP,WITH MOTORIZED	ZOOM; AS PER SPECIFICATION S	HEET ATTACHED.	, T	1	, , , , , , , , , , , , , , , , , , ,	
64	Indoor (Dome) 2MP	12204-JIND LPG	Each	2	85258020	06AAACH1 118B1ZG	Yes
	RIPTION => TYPE:HD IP DOME CA CE; DETAILED SPECIFICATION SHI		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	MFZ LENS PIC	CKUP
65	Fixed camera Motorized zoom 4K	12204-JIND LPG	Each	1		06AAACH1 118B1ZG	Yes
	RIPTION => TYPE:FIXED NON FLATIONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TONS
66	Fixed Camera FL50	12204-JIND LPG	Each	8	85258090	06AAACH1 118B1ZG	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S' N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS	MERA; RECORDING S:12-50 MM; INGRESS	RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO	IXELS HD; IM FRAME RAT	IAGE E:25/ 30 FPS; N	NIGHT
67	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12204-JIND LPG	Meters	4000		06AAACH1 118B1ZG	Yes
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECIF				THED STEEL	ARMOURED	CABLES AS
68	OPTICAL FIBER CABLE,SM,12 CORE	12204-JIND LPG	Each	1600		06AAACH1 118B1ZG	Yes
	RIPTION => PART NAME:OFC CAL ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPME	ENT MODEL:N	I/A; AS PER
69	SPLY AND LAYG OF ARMOURED CAT6	12204-JIND LPG	Meters	1100	995424	06AAACH1 118B1ZG	Yes
	RIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER						
70	GI EARTHING WIRE 8SWG	12204-JIND LPG	Meters	2500		06AAACH1 118B1ZG	Yes
	RIPTION => PROVIDING AND FIX						
71	SPLY&LAYG OF UNARMOURED CAT6	12204-JIND LPG	Each	1200	995424	06AAACH1 118B1ZG	Yes
DESC CHAR	RIPTION => PROVIDING AND LAY GE)	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
72	CONST OF CABLE TRENCH	12204-JIND LPG	Meters	2000	995433	06AAACH1 118B1ZG	Yes
	RIPTION => UNDERGROUND-CAE EPTH, CABLE ROUTE MARKER-GA		D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO	ON, 1800 MM V	VIDE, 1000
73	NETWORK SWITCH,MANAGED,8 PORT	12204-JIND LPG	Each	10	84733091	06AAACH1 118B1ZG	Yes
	RIPTION => NETWORK SWITCH; 1	· · · · · · · · · · · · · · · · · · ·	1	T		1	
74	JUNCTION BOX	12204-JIND LPG	Each	3	995461	06AAACH1 118B1ZG	Yes
	RIPTION => SUPPLY AND INSTAL				005404	000000000000000000000000000000000000000	\/
75	FLP JUNCTION BOX	12204-JIND LPG	Each	4	995461	06AAACH1 118B1ZG	Yes
WITH STEEL AMEN CLAM	PRIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT L HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE D MAKE OR EQUIVALENT SHALI	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR	66 CLASS PROTECTION, TI DII B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC	EMPERATURE ED AS PER IS - FERMINALS F CTION BOX SE	E CLASS T3, S' -2148 WITH LA FOR SUITABLI HALL HAVE E	TAINLESS ATEST E ENTRIES. XTERNAL
TAKE INCH	THE APPROVAL OF THE DIMENSI (FOR 6 ,P 1 SQ.MM AND 4 PAIR 1 S	ONS OF THIS JUNCTION BOX FRO Q.MM CABLE), 6 NOS 1/2 INCH (F	OM ENGINEER-IN-CH OR 2 P 1 SQ.MM AND	HARGE. 2 NO 1 1/2 INCH NPT D 1 P 1 SQ.MM CABLE) NPT	Γ (FOR 18 P 1	SQ.MM CABL	E), 4 NO 3/4
76	GI Pole 8 MT	12204-JIND LPG	Each	20		06AAACH1 118B1ZG	Yes
	RIPTION => PART NAME:CAMERA ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV SY	YSTEM; EQUII	PMENT MODE	EL:N/A; AS
77	HARD DISK DRIVE per TB cost	12204-JIND LPG	Each	50		06AAACH1 118B1ZG	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
78	55 inch LED TV	12204-JIND LPG	Each	1	998734	06AAACH1 118B1ZG	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION	ATTACHED			

79	VIDEO MANAGEMENT SOFTWARE	12204-JIND LPG	Each	43	998733	06AAACH1 118B1ZG	Yes
	RIPTION => MANAGEMENT SOFT				LICENSE.	T	T.,
80	INSTLN COMMNG TESTING CCTV SYS	12204-JIND LPG	Lump Sum	1	<u> </u>	06AAACH1 118B1ZG	Yes
	RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN		TEM AND ASSOCIAT	ED ACCESSORIES AS PER T	THE TERMS A	ND CONDITIC	ONS
81	Fixed Camera FL12	12126-LONI LPG TOP	Each	17	85258090	09AAACH1 118B1ZA	Yes
COME	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LEN					NIGHT
82	PTZ CAMERA	12126-LONI LPG TOP	Each	1		09AAACH1 118B1ZA	Yes
	RIPTION => TYPE:PTZ NON FLAM NDER MUST BE FOLLOWED	MEPROOF CAMERA; MANUFACTU	JRER:N/A; MODEL N	UMBER:N/A; IN ADDITION	TO THIS, SPE	CIFICATIONS	MENTIONED
83	FLP Enclosur Fixed Camera F12	12126-LONI LPG TOP	Each	10		09AAACH1 118B1ZA	Yes
INSTI CERT CLAS	RIPTION => PART NAME:FLAMEI FUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2;	EARCH) APPROVED FLAME PROO E; TECHNICAL SPECIFICATION: T GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 179-0:2004, INGRESS I	RICAL ENCLOSURE WITH V FION:EEX-D TYPE, IS/IEC60 P PROTECTION:IP66 IS/IEC	ALID TEST CI 079-1:2007, ZC 60529-1:2001; I	ERTIFICATES NE PAINT:EPOXY	. ALSO PESO
84	PER COATING; EARTHLING:INTER	12126-LONI LPG TOP	Each	5	85258020	09AAACH1	Yes
DESC	zoom2MP RIPTION => TYPE:HD IP FIXED CA	I AMERA; MANUFACTURER:BOSCI	L H/SONY/AXIS/PELCC		L DDEL NUMBE	118B1ZA R:N/A; ADDIT	IONAL
INFOE 85	Indoor (Dome) 2MP	ZOOM; AS PER SPECIFICATION S 12126-LONI LPG TOP	Each	4	85258020	09AAACH1	Yes
DESC	RIPTION => TYPE:HD IP DOME C	 AMERA: MANUFACTURER:N/A: N	 	ADDITIONAL INFORMAT	ION·IRF AND	118B1ZA MEZ LENS PIO	CKUP
	CE; DETAILED SPECIFICATION SH Fixed camera Motorized zoom 4K	EET ATTACHED.	Each	4		09AAACH1	Yes
	RIPTION => TYPE:FIXED NON FL.				TION TO THI:	118B1ZA	
MENT	IONED IN TENDER MUST BE FOL	LOWED	·	·	1	<u></u>	1
87	Fixed Camera FL50	12126-LONI LPG TOP	Each	11	85258090	09AAACH1 118B1ZA	Yes
COME	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LEN					NIGHT
88	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12126-LONI LPG TOP	Meters	3500		09AAACH1 118B1ZA	Yes
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECIE				THED STEEL	ARMOURED	CABLES AS
89	OPTICAL FIBER CABLE,SM,12 CORE	12126-LONI LPG TOP	Each	3500		09AAACH1 118B1ZA	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	FACTURER:N/A; EQU	TIPMENT NAME:CCTV SYST	TEM; EQUIPM	ENT MODEL:	N/A; AS PER
90	SPLY AND LAYG OF ARMOURED CAT6	12126-LONI LPG TOP	Meters	3500	995424	09AAACH1 118B1ZA	Yes
	RIPTION => SUPPLY AND LAYING URED3. CONDUCTOR DIAMETER						
91	GI EARTHING WIRE 8SWG	12126-LONI LPG TOP	Meters	3000	9.05 111110. 711 1	09AAACH1 118B1ZA	Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUF	RFACE OR IN RECESS	S FOR LOOP EARTHING AS	REQUIRED.	1	1
92	SPLY&LAYG OF UNARMOURED CAT6	12126-LONI LPG TOP	Each	300	995424	09AAACH1 118B1ZA	Yes
DESC CHAR	RIPTION => PROVIDING AND LA' GE)	YING AMP CAT 6 CABLE FOR LAN	N WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
93	CONST OF CABLE TRENCH	12126-LONI LPG TOP	Meters	2000	995433	09AAACH1 118B1ZA	Yes
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G		ID FILLING, BRICK L	AYING, BACKFILLING ANI	O COMPACTIO	ON, 1800 MM V	WIDE, 1000
94	NETWORK SWITCH,MANAGED,8 PORT	12126-LONI LPG TOP	Each	13	84733091	09AAACH1 118B1ZA	Yes
DESC	RIPTION => NETWORK SWITCH;	NUMBER OF PORTS:8; APPLICATI	ION:OUTDOOR				1
95	JUNCTION BOX	12126-LONI LPG TOP	Each	5	995461	09AAACH1 118B1ZA	Yes
	RIPTION => SUPPLY AND INSTAI FLP JUNCTION BOX	LLATION OF WEATHER PROOF JU 12126-LONI LPG TOP		R TENDER DOCUMENT.	005464	09AAACH1	Yes
96			Each		995461	118B1ZA	
WITH STEEL AMEN CLAM EART TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL JUNCTION BOX SHA THE APPROVAL OF THE DIMENS (FOR 6, P. 1 SQ.MM AND 4 PAIR 1.8	TOM TYPE CABLE ENTRIES, LM 6 , NEOPRENE GASKET, SUITABLE I CTION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHAL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	5 CONSTRUCTION, IF FOR GROUP II A ANI JUNCTION BOX SHA L BE PROVIDED FOR RED SHORTING LINK OM ENGINEER-IN-CI	P 66 CLASS PROTECTION, T D II B, CCOE CMRI CERTIFII ALL INCLUDE NECESSARY R ALL JUNCTION BOX. JUNG S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURI ED AS PER IS TERMINALS I CTION BOX SI OF CABLES. O T (FOR 18 P 1	E CLASS T3, S -2148 WITH LA FOR SUITABL HALL HAVE E CONTRACTOF SQ.MM CABL	TAINLESS ATEST E ENTRIES. EXTERNAL R SHALL LE), 4 NO 3/4
97	GI Pole 8 MT	12126-LONI LPG TOP	Each	31	<u> </u>	09AAACH1 118B1ZA	Yes
	RIPTION => PART NAME:CAMER ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MA	NUFACTURER:N/A; F	EQUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODI	EL:N/A; AS
98	HARD DISK DRIVE per TB cost	12126-LONI LPG TOP	Each	70		09AAACH1 118B1ZA	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	TON, TESTING AND COMMISSION	NING OF HDD/NAS FO	OR STORAGE OF DATA FRO	OM CAMERA I		OF 90 DAYS

99	55 inch LED TV	12126-LONI LPG TOP	Each	2	998734	09AAACH1 118B1ZA	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION	ATTACHED.			1
100	VIDEO MANAGEMENT SOFTWARE	12126-LONI LPG TOP	Each	56	998733	09AAACH1 118B1ZA	Yes
DESC	RIPTION => MANAGEMENT SOFT	WARE: SUPPLY AND INSTALLAT	ION OF CCTV VMS S	OFTWARE FOR CAMERAS	LICENSE.		ı
101	INSTLN COMMNG TESTING CCTV SYS	12126-LONI LPG TOP	Lump Sum	1		09AAACH1 118B1ZA	Yes
	RIPTION => INSTALLATION AND IONED IN THE TENDER ATTACHN		EM AND ASSOCIATE	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
102	Fixed Camera FL12	12173-PAMPORE LPG PLANT	Each	12	85258090	01AAACH1 118B1ZQ	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
103	PTZ CAMERA	12173-PAMPORE LPG PLANT	Each	1		01AAACH1 118B1ZQ	Yes
	RIPTION => TYPE:PTZ NON FLAM NDER MUST BE FOLLOWED	IEPROOF CAMERA; MANUFACTU	RER:N/A; MODEL NU	JMBER:N/A; IN ADDITION	TO THIS, SPEC	CIFICATIONS N	MENTIONED
104	FLP Enclosur Fixed Camera F12	12173-PAMPORE LPG PLANT	Each	6		01AAACH1 118B1ZQ	Yes
INSTITE CERTICLES	RIPTION => PART NAME:FLAME FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; ER COATING; EARTHLING:INTER	ARCH) APPROVED FLAME PROOI TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS II	ICAL ENCLOSURE WITH V. TON:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO: 0529-1:2001; P	PLY CIMFR(CI ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
105	Fixed camera motorized zoom2MP	12173-PAMPORE LPG PLANT	Each	3	85258020	01AAACH1 118B1ZQ	Yes
	RIPTION => TYPE:HD IP FIXED CAMATION:2MP,WITH MOTORIZED			/VERINT/HONEYWELL; MC	DEL NUMBEI	R:N/A; ADDITI	IONAL
106	Indoor (Dome) 2MP	12173-PAMPORE LPG PLANT	Each	3	85258020	01AAACH1 118B1ZQ	Yes
	 RIPTION => TYPE:HD IP DOME CA CE: DETAILED SPECIFICATION SH		ODEL NUMBER:N/A	I ; ADDITIONAL INFORMATI	ON:IRF AND I		KUP
107	Fixed camera Motorized zoom 4K		Each	2		01AAACH1 118B1ZQ	Yes
	RIPTION => TYPE:FIXED NON FLATIONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS		IONS
108	Fixed Camera FL50	12173-PAMPORE LPG PLANT	Each	5	85258090	01AAACH1 118B1ZQ	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S	TREAM; FOCAL LENGTH OF LENS				AGE	IIGHT
109	N:REQUIRED; CAMERA SHALL BE 3CORE 4SQ MM CBL.ARM.1.1KV.CU,	12173-PAMPORE LPG PLANT	Meters	2500		01AAACH1 118B1ZQ	Yes
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECII				L ГНЕD STEEL		CABLES AS
110	OPTICAL FIBER CABLE,SM,12 CORE	12173-PAMPORE LPG PLANT	Each Each	3000		01AAACH1 118B1ZQ	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	I IPMENT NAME:CCTV SYST	EM; EQUIPME		I/A; AS PER
111	SPLY AND LAYG OF ARMOURED CAT6	12173-PAMPORE LPG PLANT	Meters	1000	995424	01AAACH1 118B1ZQ	Yes
	RIPTION => SUPPLY AND LAYING DURED3, CONDUCTOR DIAMETER					RING:GALVA	
112	GI EARTHING WIRE 8SWG	12173-PAMPORE LPG PLANT	Meters	100	.00 1411410. 711 1	01AAACH1 118B1ZQ	Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR	FACE OR IN RECESS	FOR LOOP EARTHING AS	REOUIRED.	1100120	
113	SPLY&LAYG OF UNARMOURED CAT6	12173-PAMPORE LPG PLANT	Each	1000	995424	01AAACH1 118B1ZQ	Yes
DESC CHAR	RIPTION => PROVIDING AND LA	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO		ER-IN-
114	CONST OF CABLE TRENCH	12173-PAMPORE LPG PLANT	Meters	2000	995433	01AAACH1 118B1ZQ	Yes
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-GA		D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO	ON, 1800 MM W	VIDE, 1000
115	NETWORK SWITCH,MANAGED,8 PORT	12173-PAMPORE LPG PLANT	Each	9	84733091	01AAACH1 118B1ZQ	Yes
DESC	RIPTION => NETWORK SWITCH;	NUMBER OF PORTS:8; APPLICATI	ON:OUTDOOR				
116	JUNCTION BOX	12173-PAMPORE LPG PLANT	Each	1	995461	01AAACH1 118B1ZQ	Yes
DESC 117	RIPTION => SUPPLY AND INSTALE FLP JUNCTION BOX	LATION OF WEATHER PROOF JU 12173-PAMPORE LPG PLANT	NCTION BOX AS PER	R TENDER DOCUMENT.	995461	01AAACH1	Yes
111/	PLP JUNCTION BOX	12173-PAINIFORE LFG FLAINT	Each	9	990401	118B1ZQ	162
WITH STEEL AMEN CLAM EARTI TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE DD MAKE OR EQUIVALENT SHAL IALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IP FOR GROUP II A ANE JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CH	166 CLASS PROTECTION, TI DII B, CCOE CMRI CERTIFIE ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURE ED AS PER IS - FERMINALS F CTION BOX SH OF CABLES. C F (FOR 18 P 1	E CLASS T3, ST 2148 WITH LA FOR SUITABLE HALL HAVE EX CONTRACTOR SQ.MM CABLE	FAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
118	GI Pole 8 MT	12173-PAMPORE LPG PLANT	Each	19		01AAACH1 118B1ZQ	Yes
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV SY	YSTEM; EQUII	!	L:N/A; AS

119	HARD DISK DRIVE per TB cost	12173-PAMPORE LPG PLANT	Each	50		01AAACH1 118B1ZQ	Yes
	CRIPTION => SUPPLY, INSTALLAT OR TECHNICAL SPECIFICATION.	TION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	FOR A PERIOD	OF 90 DAYS
120	VIDEO MANAGEMENT SOFTWARE	12173-PAMPORE LPG PLANT	Each	40	998733	01AAACH1 118B1ZQ	Yes
DESC	CRIPTION => MANAGEMENT SOF	TWARE: SUPPLY AND INSTALLAT	ION OF CCTV VMS S	OFTWARE FOR CAMERAS	LICENSE.	110B12Q	1
121	INSTLN COMMNG TESTING CCTV SYS	12173-PAMPORE LPG PLANT	Lump Sum	1		01AAACH1 118B1ZQ	Yes
	CRIPTION => INSTALLATION AND TIONED IN THE TENDER ATTACH		EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS A	ND CONDITIO	NS
122	Fixed Camera FL12	12121-BAHADURGARH LPG PLANT	Each	17	85258090	06AAACH1 118B1ZG	Yes
COMI	CRIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BI	TREAM; FOCAL LENGTH OF LEN					NIGHT
123	PTZ CAMERA	12121-BAHADURGARH LPG PLANT	Each	1		06AAACH1 118B1ZG	Yes
	CRIPTION => TYPE:PTZ NON FLAM NDER MUST BE FOLLOWED	MEPROOF CAMERA; MANUFACTU	RER:N/A; MODEL NU	UMBER:N/A; IN ADDITION	ΓΟ THIS, SPEC	CIFICATIONS	MENTIONED
124	FLP Enclosur Fixed Camera F12	12121-BAHADURGARH LPG PLANT	Each	4		06AAACH1 118B1ZG	Yes
INSTI CERT CLAS	CRIPTION => PART NAME:FLAME: TUTE OF MINING AND FUEL RESS IFICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2; DER COATING; EARTHLING:INTER	EARCH) APPROVED FLAME PROO E; TECHNICAL SPECIFICATION: T GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
125	Fixed camera motorized zoom2MP	12121-BAHADURGARH LPG PLANT	Each	1	85258020	06AAACH1 118B1ZG	Yes
	CRIPTION => TYPE:HD IP FIXED C. RMATION:2MP,WITH MOTORIZED			/VERINT/HONEYWELL; MC	DDEL NUMBE	R:N/A; ADDIT	IONAL
126	Indoor (Dome) 2MP	12121-BAHADURGARH LPG PLANT	Each	2	85258020	06AAACH1 118B1ZG	Yes
	CRIPTION => TYPE:HD IP DOME C. CE; DETAILED SPECIFICATION SH		IODEL NUMBER:N/A	; ADDITIONAL INFORMAT	ON:IRF AND	MFZ LENS PIC	CKUP
127	Fixed Camera FL50	12121-BAHADURGARH LPG PLANT	Each	10	85258090	06AAACH1 118B1ZG	Yes
COMI	CRIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BI	TREAM; FOCAL LENGTH OF LEN					NIGHT
128	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12121-BAHADURGARH LPG PLANT	Meters	7000		06AAACH1 118B1ZG	Yes
	CRIPTION => SUPPLY OF THE FO S 7098 PART-1 AND AS PER SPECT				THED STEEL	ARMOURED	CABLES AS
129	OPTICAL FIBER CABLE,SM,12 CORE	12121-BAHADURGARH LPG PLANT	Each	7000		06AAACH1 118B1ZG	Yes
	CRIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	V/A; AS PER
130	SPLY AND LAYG OF ARMOURED CAT6	12121-BAHADURGARH LPG PLANT	Meters	1800	995424	06AAACH1 118B1ZG	Yes
	CRIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER						
131	GI EARTHING WIRE 8SWG	12121-BAHADURGARH LPG PLANT	Meters	1000		06AAACH1 118B1ZG	Yes
DESC	CRIPTION => PROVIDING AND FIX		FACE OR IN RECESS	FOR LOOP EARTHING AS	REQUIRED.		
132	SPLY&LAYG OF UNARMOURED CAT6	12121-BAHADURGARH LPG PLANT	Each	1000	995424	06AAACH1 118B1ZG	Yes
DESC CHAR	CRIPTION => PROVIDING AND LA G(E)	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
133	CONST OF CABLE TRENCH	12121-BAHADURGARH LPG PLANT	Meters	1500	995433	06AAACH1 118B1ZG	Yes
	CRIPTION => UNDERGROUND-CA EPTH, CABLE ROUTE MARKER-G		D FILLING, BRICK L	AYING, BACKFILLING ANI	COMPACTIO	ON, 1800 MM V	VIDE, 1000
134	NETWORK SWITCH,MANAGED,8 PORT	12121-BAHADURGARH LPG PLANT	Each	10	84733091	06AAACH1 118B1ZG	Yes
	CRIPTION => NETWORK SWITCH;			T			
135	JUNCTION BOX	12121-BAHADURGARH LPG PLANT	Each	12	995461	06AAACH1 118B1ZG	Yes
DESC 136	CRIPTION => SUPPLY AND INSTAI FLP JUNCTION BOX	LLATION OF WEATHER PROOF JU 12121-BAHADURGARH LPG	NCTION BOX AS PER	R TENDER DOCUMENT.	995461	06AAACH1	Yes
DESC	CRIPTION => SUPPLY, INSTALL A	PLANT ND COMMISSIONING OF 12 WAY I	FLP EXD TYPE MULT	I WAY FLAME PROOF ANI	FXPLOSION	118B1ZG	TION BOX
WITH STEEL AMEN CLAM EART TAKE INCH	TERMINALS WITH TOP AND BOT L HARDWARE, EARTHING BOLTS, SUMENTS AND AS PER THE DIRECT PROPERTY THE DIRECT PROPERTY THE APPROVAL OF THE DIMENS (FOR 6, P. 1 SQ.MM AND 4 PAIR 1.5).	TOM TYPE CABLE ENTRIES, LM 6, NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO SQ.MM CABLE), 6 NOS 1/2 INCH (F	G CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CF OR 2 P 1 SQ.MM AND	P 66 CLASS PROTECTION, T D III B, CCOE CMRI CERTIFII LLL INCLUDE NECESSARY ALL JUNCTION BOX. JUNO S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP D 1 P 1 SQ.MM CABLE) NPT	EMPERATURI ED AS PER IS - TERMINALS I CTION BOX SI OF CABLES. O I (FOR 18 P 1	E CLASS T3, S' -2148 WITH LA FOR SUITABLE HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. EXTERNAL S SHALL E), 4 NO 3/4
137	GI Pole 8 MT	12121-BAHADURGARH LPG PLANT	Each	32		06AAACH1 118B1ZG	Yes
	CRIPTION => PART NAME:CAMER ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	EQUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS
138	HARD DISK DRIVE per TB cost	12121-BAHADURGARH LPG PLANT	Each	80		06AAACH1 118B1ZG	Yes
	CRIPTION => SUPPLY, INSTALLAT OR TECHNICAL SPECIFICATION.	TION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	FOR A PERIOD	OF 90 DAYS

DESCRIPTION — SUPPLY AND DISTALLATION OF 55 INCH LED TY AS PER SPECIFICATION ATTACHED. 140 VIDEO MANAGEMENT 12/21-BAPAQURGARH LPG Each 45 998733 1066AACH 1076 1								
180 WORD MANAGEMENT 12121-544ADURGARH LPG LPG SOFTWARE SITEMAN 1618120 SOFTWARE SITEMAN	55 i			Each	2	998734	06AAACH1 118B1ZG	Yes
SOFTWARE	CRIPT	TION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION .	ATTACHED.			
1511 SITTAN COMMING TESTING 12121-84AHADURGARH LPG LUING SUM 1 1 1088AACH 1588127.				Each	45	998733	06AAACH1 118B1ZG	Yes
DESCRIPTION > ONTALLATION AND COMMISSIONING OF CUTY SYSTEM ON DESCRIPTION > ONTALLATION AND COMMISSIONING OF CUTY SYSTEM ON COMPREHENSIVE AND CAPTER EXPREY OF WARRANTY PERIOD FOR SIPPLIFID SYSTEM AND ASSOCIATED ACCESSORIES, AS PER THE TREMS AND COMPREHENSIVE AND CAPTER EXPREY OF WARRANTY PERIOD FOR SIPPLIFID SYSTEM AND COMPREHENSIVE AND CAPTER EXPREY OF WARRANTY PERIOD FOR SIPPLIFID SYSTEM AND CAPTER EXPREY OF WARRANTY PERIOD FOR SIPPLIFI	CRIPT	TION => MANAGEMENT SOFT	WARE: SUPPLY AND INSTALLAT	ION OF CCTV VMS S	SOFTWARE FOR CAMERAS	LICENSE.		
MINITORNED IN THE TENDER ATTACHMENTS. VERY EAR COTY SYSTEM 12201-ANDERSHEEP AND				Lump Sum	1		06AAACH1 118B1ZG	Yes
Internation Description Camp For StryBill Ance System Comprehensive and After Early of Warranty Period For Supplied System Camp For Supplied System				EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
183 CAMC FOR CCTV SYSTEM DISCRIPTION ~> CAMC FOR SIEVEIL ANCE SYSTEM COMPREHENSIVE ANC AFTER EXPERY OF WARRANTY PERIOD FOR SIEVEIL DISCRIPTION TO THE STATE OF T			12171-JAMMU LPG PLANT	Year	5		01AAACH1 118B1ZQ	Yes
DESCRIPTION => CAME FOR SURVEILLANCE SYSTEM COMPREHENSIVE AND AFFER EXPIRY OF WARRANTY PERIOD FOR SUPPLIED SYSTEM						FOR SUPPLII		1
144 CAMC FOR CCTV SYSTEM 12215-8hatinola Bottling Plant 125 CAMC FOR SURVEILLANCE SYSTEM. COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SUPPLIED SYSTEM 126 CAMC FOR CCTV SYSTEM 12204-JUND LPG 126 CAMC FOR CCTV SYSTEM 12124-JUND LPG 12705-PR YEAR	PE	R YEAR						Yes
DESCRIPTION == CAME FOR SURVEILLANCE SYSTEM: COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SURPLIED SYSTEM 165 CAMIC FOR CCTV SYSTEM 1224-JUND IPG Your 5 DESCRIPTION == CAMIC FOR SURVEILLANCE SYSTEM: COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SURPLIED SYSTEM 1278-DAILY						FOR SUPPLII	1	1.,
145 GAMC FOR COTV SYSTEM 12204-JIND LPG Year 5 106AAACH PER YEAR 168 167 168 167 168 167 168 167 168	PEF	R YEAR					118B1ZM	Yes
PER YEAR 11881226						FOR SUPPLII		I.,
146 CAMC FOR CCTV SYSTEM 12126-LONI LPG TOP PER YEAR DESCRIPTION -> CAMC FOR SURVEILLANCE SYSTEM-COMPREHENSIVE ANC AFTER EXPIRY OF WARRANTY PERIOD FOR SUPFLIED SYSTEM 147 CAMC FOR CCTV SYSTEM 12173-PAMPORE LPG PLANT 148 CAMC FOR CCTV SYSTEM 12121-BAHADURGARH LPG 148 CAMC FOR CCTV SYSTEM 12121-BAHADURGARH LPG 148 CAMC FOR CCTV SYSTEM 12121-BAHADURGARH LPG 149 CAMC FOR CCTV SYSTEM 12121-BAHADURGARH LPG 149 CAMC FOR CCTV SYSTEM 12121-BAHADURGARH LPG 140 CAMC FOR SURVEILLANCE SYSTEM-COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SUPFLIED SYSTEM 148 CAMC FOR CCTV SYSTEM 149 CAMC FOR SURVEILLANCE SYSTEM-COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SUPFLIED SYSTEM 149 CAMC FOR SURVEILLANCE SYSTEM-COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SUPFLIED SYSTEM 140 FIXED STANDARD SYSTEM 150 CAMC FOR SURVEILLANCE SYSTEM-COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SUPFLIED SYSTEM 150 CAMC FOR SURVEILLANCE SYSTEM-COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SUPFLIED SYSTEM 150 CAMC FOR SURVEILLANCE SYSTEM-COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SUPFLIED SYSTEM 150 CAMC FOR SURVEILLANCE SYSTEM-COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SUPFLIED SYSTEM 150 CAMP SYSTEM SYSTEM 150 CAMP SYSTEM			12204-JIND LPG	Year	5			Yes
DESCRIPTION => CAMC FOR SURVEILLANCE SYSTEM: COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SUPPLIED SYSTEM FROM FOR COLOR SURVEILLANCE SYSTEM: COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SUPPLIED SYSTEM FROM FROM FROM FROM FROM FROM FROM FRO	CRIP1	TION => CAMC FOR SURVEILI	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOR	FOR SUPPLI	ED SYSTEM.	
MAKE FOR CITY SYSTEM 12/13-PAMPORE LPG PLANT Year S			12126-LONI LPG TOP	Year	5		09AAACH1 118B1ZA	Yes
PER YEAR	CRIPT	TION => CAMC FOR SURVEILI	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOR	FOR SUPPLI	ED SYSTEM.	
148 CAMC FOR CCTV SYSTEM 12121-BAHADURGARH LPG Year 5 1988126 DESCRIPTION → CAMC FOR SURVEIL LANCE SYSTEM: COMPREHENSIVE AMC AFTER EXPIRY OF WARRANTY PERIOD FOR SUPPLIED SYSTEM Schedule 2 NORTH WEST ZONE 12241-AJMER LPG PLANT Each 23 8528090 08AAACH 1 Fixed Camera FL12 12241-AJMER LPG PLANT Each 23 8528090 08AAACH 1 Fixed Camera FL12 12241-AJMER LPG PLANT Each 23 8528090 08AAACH 1 Fixed Camera FL12 12241-AJMER LPG PLANT Each 23 8528090 08AAACH 1 Fixed Camera FL12 12241-AJMER LPG PLANT Each 23 8528090 08AAACH 1 Fixed Camera FL12 12241-AJMER LPG PLANT Each 14 14 14 14 1 Fixed Camera FL12 12241-AJMER LPG PLANT Each 14 14 08AAACH 1 Fixed Camera FL12 12241-AJMER LPG PLANT Each 14 14 08AAACH 1 Fixed Camera FL12 12241-AJMER LPG PLANT Each 14 08AAACH 1 Fixed Camera FL12 12241-AJMER LPG PLANT Each 14 08AAACH 1 Fixed Camera FL12 12241-AJMER LPG PLANT Each 14 08AAACH 1 Fixed Camera FL12 12241-AJMER LPG PLANT Each 14 08AAACH 1 Fixed Camera FL12 12241-AJMER LPG PLANT Each 15 08AAACH 1 Fixed Camera FL12 14 14 08AAACH 1 Fixed Camera FL12 14 14 18 15 15 15 15 15 15 15			12173-PAMPORE LPG PLANT	Year	5		01AAACH1 118B1ZQ	Yes
PIER YEAR PIANT	CRIPT	TION => CAMC FOR SURVEILE	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOR	FOR SUPPLI	ED SYSTEM.	
1 Fixed Camera FL12				Year	5		06AAACH1 118B1ZG	Yes
1 Fixed Camera FL12	CRIPT	TION => CAMC FOR SURVEILI	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOR	FOR SUPPLI	ED SYSTEM.	
DESCRIPTION => IP:NETWORK CCTV:TYPE:DAY AND NIGHT FIXED CAMERA, RECORDING RESOLUTION:1920X1080 PIXELS HD; IMAGE COMPRESSIONH; 264MPBC-4, TRIPLE STREAM; POCAL LENGTH OF LENS:2.8-12 MM; INGRESS PROTECTION:1920X1080 PIXELS HD; IMAGE COMPRESSIONH; 264MPBC-4, TRIPLE STREAM; POCAL LENGTH OF LENS:2.8-12 MM; INGRESS PROTECTION:1920X1080 PIXELS HD; IMAGE COMPRESSIONH; 264MPBC-4, TRIPLE STREAM; POCAL LENGTH OF LENS:2.8-12 MM; INGRESS PROTECTION:1920X1080 PIXELS HD; IMAGE COMPRESSIONH; 264MPBC-4, TRIPLE STREAM; POCAL LENGTH OF LENS:2.8-12 MM; INGRESS PROTECTION:1920X1080 PIXELS HD; IMAGE The compression of the compressio		Sch	nedule 2 NORTH WEST ZONE			ı	Ma	anadatory: No
DESCRIPTION> IP: NETWORK CCTV; TYPE-DAY AND NIGHT FIXED CAMERA, RECORDING BESOLUTION.1920X1080 PIXELS HID. IMAGE COMPRESSION.1244AB64. TEQHE STREAM-FOCAL LENGTH OF LENS; 2.8-12 MM; INGRESS PROTECTION:1966; VIDEO FRAME RATE: 25' 30 FP: VISIONERGUIRED. CAMERA SHALL BE CONVIE COMPLIANT WITH POB. 2	Fixe	ked Camera FL12	12241-AJMER LPG PLANT	Each	23	85258090	08AAACH1	Yes
2 FLP Enclosur Fixed Camera F12 12241-AJMER LPG PLANT	CRIPT IPRES	PTION => IP/ NETWORK CCTV; SSION:H.264/MPEG-4, TRIPLE S'	TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS	MERA; RECORDING 5:2.8-12 MM; INGRES	I GRESOLUTION:1920X1080 P GS PROTECTION:IP66; VIDEO	IXELS HD; IM D FRAME RAT	AGE	NIGHT
DESCRIPTION SPART NAME FLAMERROOF ENCLOSURE. PART MATERIAL DIE CAST ALUMINUM ALLOY LIMIG PARTY SHALL SUPPLY CINIFE INSTITUTE OF MINING AND PUBLIC BASES MINING AND PUBLIC BASES MAND ALUMINA BLETTICATION SHALL BY DEFINE THE NATION SHALL BY DEFINE AT THE MINING AND ZONDE 2, GAS GROUPHAL ME TO ALUMINA BLETTICATION SHALL BY ALUMINA BLE TECHNICAL SPECIFICATION: TYPE 09 EACH PROTECTION SHALL BY ALUMINA BLE TECHNICAL SPECIFICATION: TYPE 09 EACH PROTECTION SHALL BY ALUMINA BLE TECHNICAL SPECIFICATION: TYPE 09 EACH PROTECTION SHALL BY ALUMINA BY ALUM				Each	14		08AAACH1	Yes
INSTITUTE OF MINING AND FUEL RESEARCH) APPROVED FLAME PROOF ALUMINA ELECTRICAL ENCLOSURE WITH VALID TEST CERTIFICATION SHALL BE AVAILABLE, TECHNICAL SPECIFICATION. TYPE OF EX. PROTECTION. SEX.D. TYPE, IS/IEC60079-1:2007, ZONC. CLASSIFICATION:ZONE I AND ZONE : GAS GROUPILA, IIB, TG IS/IEC60079-0:2004, INGRESS IP PROTECTION. SEX.D. TYPE, IS/IEC60079-1:2007, ZONC. CLASSIFICATION:ZONE I AND ZONE : GAS GROUPILA, IIB, TG IS/IEC60079-0:2004, INGRESS IP PROTECTION. SEX.D. TYPE, IS/IEC60079-1:2007, ZONC. CLASSIFICATION:ZONE I AND ZONE : GAS GROUPILA, IIB, TG IS/IEC60079-0:2004, INGRESS IP PROTECTION. SEX.D. TYPE, IS/IEC60079-1:2001, PAINT:POOD CONTROL OF THE PROTECTION. SEX.D. TYPE, IS/IEC60079-1:2001, PAINT:POOD CONTROL INCREMENTAL ON THE PROTECTION. SEX.D. TYPE, IS/IEC60079-1:2001, PAINT:POOD CONTROL INCREMENTAL ON THE PROTECTION. SEX.D. TYPE, IS/IEC60079-1:2001, PAINT:POOD CONTROL INCREMENTAL ON THE PROTECTION. SEX.D. TYPE, IS/IEC60079-1:2001, PAINT:POOD CONTROL INCREMENTAL ON THE PROTECTION. SEX.D. TYPE, IS/IEC60079-1:2001, PAINT:POOD CONTROL INCREMENTAL ON THE PROTECTION. SEX.D. TYPE, IS/IEC60079-1:2001, PAINT:POOD CONTROL INCREMENTAL INCREMENTAL ON THE PROTECTION. SEX.D. TYPE, IS/IEC60079-1:2001, PAINT:POOD CONTROL INCREMENTAL INCREMENT	~~~							
3 Fixed camera motorized 12241-AJMER LPG PLANT Each 5 85258020 0.8AAACH 18B1ZC	TTUTI TIFICA SSIFIC	TE OF MINING AND FUEL RESE CATION SHALL BE AVAILABLE ICATION:ZONE 1 AND ZONE 2; (ARCH) APPROVED FLAME PROOF ; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC6007	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS II	ICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 0529-1:2001; P	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
INFORMATION:2MP,WITH MOTORIZED ZOOM; AS PER SPECIFICATION SHEET ATTACHED.	Fixe	ked camera motorized			_ ` ′		08AAACH1	Yes
Indoor (Dome) 2MP 12241-AJMER LPG PLANT Each 5 85258020 08AAACH 118B12C					/VERINT/HONEYWELL; MC	DEL NUMBEI	R:N/A; ADDIT	IONAL
DEVICE; DETAILED SPECIFICATION SHEET ATTACHED.	$\overline{}$, , , , , , , , , , , , , , , , , , , ,	,		5	85258020	08AAACH1 118B1ZC	Yes
5 Fixed camera Motorized zoom 4K 12241-AJMER LPG PLANT Each 4 108AAACH 118B1ZC DESCRIPTION ⇒ TYPE-FIXED NON FLAME PROOF 4K CAMERA; MANUFACTURER:N/A; MODEL NUMBER:N/A; IN ADDITION TO THIS, SPECIFIC MENTIONED IN TENDER MUST BE FOLLOWED 6 Fixed Camera FL50 12241-AJMER LPG PLANT Each 10 85258090 08AAACH 118B1ZC DESCRIPTION ⇒ IP/NETWORK CCTV; TYPE:DAY AND NIGHT FIXED CAMERA; RECORDING RESOLUTION:1920X1080 PIXELS HD; IMAGE COMPRESSION:H.264/MPEG-4, TRIPLE STREAM; FOCAL LENGTH OF LENS:12-50 MM; INGRESS PROTECTION:1966; VIDEO FRAME RATE:25/ 30 FPS VISION:REQUIRED; CAMERA SHALL BE ONVIF COMPLIANT WITH POE. 7 3CORE 4SQ MM CBLARM,1.1KV,CU, 12241-AJMER LPG PLANT Meters 5000 08AAACH 118B1ZC DESCRIPTION ⇒ SUPPLY OF THE FOLLOWING 1100 VOLTS COPPER CONDUCTOR, XLPE INSULATED, PVC SHEATHED STEEL ARMOURI PER IS 7098 PART-1: AND AS PER SPECIFICATIONS OF THIS TENDER.SUPPLY CABLE SIZE: 3 CX 4 SQMM 8 OPTICAL FIBER CABLE,SM,12 12241-AJMER LPG PLANT Each 5000 08AAACH 118B1ZC DESCRIPTION ⇒ PART NAME:OFC CABLE; PART NUMBER:N/A; MANUFACTURER:N/A; EQUIPMENT NAME:CCTV SYSTEM; EQUIPMENT MODEI TENDER DOCUMENT 9 SPLY AND LAYING OF 12241-AJMER LPG PLANT Meters 4000 995424 08AAACH 118B1ZC DESCRIPTION ⇒ SUPPLY AND LAYING OF ATCH ARMOURED NETWORK CABLE!. INNER JACKET.POLYVINYL CHLORIDE2. ARMOURING:GAL' ARMOURED CAT6 ARMOURED CAT6 ARMOURED CAT6 ARMOURED S. ODDUCTOR DIAMETER:23 AWG4. TEMPERATURE RATING:-200 TO 600 CS. THICKNESS OUTER JACKET.055 MM6. APPROVED MARAND PROVIDING AND FIXING 8 SWG DIA GI. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. DESCRIPTION ⇒ PROVIDING AND FIXING 8 SWG DIA GI. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. DESCRIPTION ⇒ UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM DEPTH, CABLE ROUTE MAKER-GALVANIZED.				ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	MFZ LENS PIC	CKUP
DESCRIPTION => TYPE:FIXED NON FLAME PROOF 4K CAMERA; MANUFACTURER:N/A; MODEL NUMBER:N/A; IN ADDITION TO THIS, SPECIFIC MENTIONED IN TENDER MUST BE FOLLOWED 6 Fixed Camera FL50		1		Each	4		08AAACH1	Yes
Each 10 85258090 08AAACH 118B1ZC	CRIPT	PTION => TYPE:FIXED NON FLA	AME PROOF 4K CAMERA; MANUF	ACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS		TONS
DESCRIPTION => IP/NETWORK CCTV; TYPE:DAY AND NIGHT FIXED CAMERA; RECORDING RESOLUTION:1920X1080 PIXELS HD; IMAGE COMPRESSION:H. 264/MPEG-4, TRIPLE STREAM; FOCAL LENGTH OF LENS:12-50 MM; INGRESS PROTECTION:1966; VIDEO FRAME RATE:25/30 FPS VISION:REQUIRED; CAMERA SHALL BE ONVIF COMPLIANT WITH POE. 7 3CORE 4SQ MM CBL,ARM,1.1KV,CU, DESCRIPTION => SUPPLY OF THE FOLLOWING 1100 VOLTS COPPER CONDUCTOR, XLPE INSULATED, PVC SHEATHED STEEL ARMOURI PER IS 7098 PART-1 AND AS PER SPECIFICATIONS OF THIS TENDER SUPPLY CABLE SIZE: 3 CX 4 SQMM 8 OPTICAL FIBER CABLE,SM,12 12241-AJMER LPG PLANT Each 5000 08AAACH 118B1ZC DESCRIPTION => PART NAME:OFC CABLE; PART NUMBER:N/A; MANUFACTURER:N/A; EQUIPMENT NAME:CCTV SYSTEM; EQUIPMENT MODEI TENDER DOCUMENT 9 SPLY AND LAYG OF 12241-AJMER LPG PLANT Meters 4000 995424 08AAACH 118B1ZC DESCRIPTION => SUPPLY AND LAYING OF CAT6 ARMOURED NETWORK CABLE1. INNER JACKET:POLYVINYL CHLORIDE2. ARMOURING:GAL' ARMOURED CAT6 12241-AJMER LPG PLANT Meters 3000 08AAACH 118B1ZC DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 11 CONST OF CABLE TRENCH 12241-AJMER LPG PLANT Meters 2000 995433 08AAACH 118B1ZC DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM MD EPTH, CABLE ROUTE MARKER-GAL VANIZED. 12 NETWORK 12241-AJMER LPG PLANT Each 16 84733091 08AAACH	TION	NED IN TENDER MUST BE FOLL	LOWED	, -	, T	1	<u> </u>	
COMPRESSION-H.264/MPEG-4, TRIPLE STREAM; FOCAL LENGTH OF LENS: 12-50 MM; INGRESS PROTECTION: IP66; VIDEO FRAME RATE: 25/30 FPS VISION: REQUIRED; CAMERA SHALL BE ONVIF COMPLIANT WITH POE. 7 3CORE 4SQ MM CBL, ARM, 1.1KV, CU, DESCRIPTION -> SUPPLY OF THE FOLLOWING 1100 VOLTS COPPER CONDUCTOR, XLPE INSULATED, PVC SHEATHED STEEL ARMOURING IT STEEL ARMOURING IN THE STEEL ARMOURING IT STEEL ARMOURING IN THE STEEL A							118B1ZC	Yes
CBL,ARM,1.1KV,CU, DESCRIPTION => SUPPLY OF THE FOLLOWING 1100 VOLTS COPPER CONDUCTOR, XLPE INSULATED, PVC SHEATHED STEEL ARMOURIPER IS 7098 PART-1 AND AS PER SPECIFICATIONS OF THIS TENDER SUPPLY CABLE SIZE: 3 CX 4 SQMM 8 OPTICAL FIBER CABLE,SM,12 12241-AJMER LPG PLANT Each 5000 08AAACH 118B1ZC DESCRIPTION => PART NAME:OFC CABLE; PART NUMBER:N/A; MANUFACTURER:N/A; EQUIPMENT NAME:CCTV SYSTEM; EQUIPMENT MODEL TENDER DOCUMENT 9 SPLY AND LAYG OF ARMOURED CAT6 12241-AJMER LPG PLANT Meters 4000 995424 08AAACH 118B1ZC DESCRIPTION => SUPPLY AND LAYING OF CAT6 ARMOURED NETWORK CABLE1. INNER JACKET:POLYVINYL CHLORIDE2. ARMOURING:GAL ARMOURED3. CONDUCTOR DIAMETER:23 AWG4. TEMPERATURE RATING:-200 TO 600 CS. THICKNESS OUTER JACKET:0.85 MM6. APPROVED MA ARMOURED3. CONDUCTOR DIAMETER:23 AWG4. TEMPERATURE RATING:-200 TO 600 CS. THICKNESS OUTER JACKET:0.85 MM6. APPROVED MA 10 GI EARTHING WIRE 8SWG 12241-AJMER LPG PLANT Meters 3000 08AAACH 118B1ZC DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 11 CONST OF CABLE TRENCH 12241-AJMER LPG PLANT Meters 2000 995433 08AAACH 118B1ZC DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM MD DEPTH, CABLE ROUTE MARKER-GALVANIZED. 12 NETWORK 12241-AJMER LPG PLANT Each 16 84733091 08AAACH	IPRES	SSION:H.264/MPEG-4, TRIPLE ST	TREAM; FOCAL LENGTH OF LENS					NIGHT
PER IS 7098 PART-1 AND AS PER SPECIFICATIONS OF THIS TENDER.SUPPLY CABLE SIZE: 3 CX 4 SQMM 8 OPTICAL FIBER CABLE, SM, 12 12241-AJMER LPG PLANT			12241-AJMER LPG PLANT	Meters	5000		08AAACH1 118B1ZC	Yes
8 OPTICAL FIBER CABLE, SM, 12 12241-AJMER LPG PLANT Each 5000 08AAACH 118B1ZC DESCRIPTION => PART NAME: OFC CABLE; PART NUMBER: N/A; MANUFACTURER: N/A; EQUIPMENT NAME: CCTV SYSTEM; EQUIPMENT MODEL TENDER DOCUMENT 9 SPLY AND LAYG OF 12241-AJMER LPG PLANT Meters 4000 995424 08AAACH 118B1ZC DESCRIPTION => SUPPLY AND LAYING OF CAT6 ARMOURED NETWORK CABLE! INNER JACKET: POLYVINYL CHLORIDE2. ARMOURING: GALVARMOURED3. CONDUCTOR DIAMETER: 23 AWG4. TEMPERATURE RATING: -200 TO 600 C5. THICKNESS OUTER JACKET: 0.85 MM6. APPROVED MA 10 GI EARTHING WIRE 8SWG 12241-AJMER LPG PLANT Meters 3000 08AAACH 118B1ZC DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 11 CONST OF CABLE TRENCH 12241-AJMER LPG PLANT Meters 2000 995433 08AAACH 118B1ZC DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 12 NETWORK 12241-AJMER LPG PLANT Each 16 84733091 08AAACH						THED STEEL	ARMOURED	CABLES AS
DESCRIPTION => PART NAME:OFC CABLE; PART NUMBER:N/A; MANUFACTURER:N/A; EQUIPMENT NAME:CCTV SYSTEM; EQUIPMENT MODEL TENDER DOCUMENT 9	OP.	PTICAL FIBER CABLE,SM,12			<u> </u>		08AAACH1 118B1ZC	Yes
9 SPLY AND LAYG OF ARMOURED CAT6 12241-AJMER LPG PLANT Meters 4000 995424 08AAACH 118B1ZC DESCRIPTION => SUPPLY AND LAYING OF CAT6 ARMOURED NETWORK CABLE1. INNER JACKET:POLYVINYL CHLORIDE2. ARMOURING:GAL' ARMOURED3. CONDUCTOR DIAMETER:23 AWG4. TEMPERATURE RATING:-200 TO 600 C5. THICKNESS OUTER JACKET:0.85 MM6. APPROVED MA 10 GI EARTHING WIRE 8SWG 12241-AJMER LPG PLANT Meters 3000 08AAACH 118B1ZC DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 11 CONST OF CABLE TRENCH 12241-AJMER LPG PLANT Meters 2000 995433 08AAACH 118B1ZC DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 12 NETWORK 12241-AJMER LPG PLANT Each 16 84733091 08AAACH	CRIPT	TION => PART NAME:OFC CAR	BLE; PART NUMBER:N/A; MANUF.	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPME		V/A; AS PER
DESCRIPTION => SUPPLY AND LAYING OF CAT6 ARMOURED NETWORK CABLEI. INNER JACKET:POLYVINYL CHLORIDE2. ARMOURING:GALY ARMOURED3. CONDUCTOR DIAMETER:23 AWG4. TEMPERATURE RATING:-200 TO 600 C5. THICKNESS OUTER JACKET:0.85 MM6. APPROVED MA 10 GI EARTHING WIRE 8SWG 12241-AJMER LPG PLANT Meters 3000 08AAACH 118B1ZC DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 11 CONST OF CABLE TRENCH 12241-AJMER LPG PLANT Meters 2000 995433 08AAACH 118B1ZC DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 12 NETWORK 12241-AJMER LPG PLANT Each 16 84733091 08AAACH	SPI	PLY AND LAYG OF	12241-AJMER LPG PLANT	Meters	4000	995424	08AAACH1 118B1ZC	Yes
10 GI EARTHING WIRE 8SWG 12241-AJMER LPG PLANT Meters 3000 08AAACH 118B1ZC DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 11 CONST OF CABLE TRENCH 12241-AJMER LPG PLANT Meters 2000 995433 08AAACH 118B1ZC DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 12 NETWORK 12241-AJMER LPG PLANT Each 16 84733091 08AAACH	CRIP1	TION => SUPPLY AND LAYING					RING:GALVA	
DESCRIPTION => PROVIDING AND FIXING 8 SWG DIA G.I. WIRE ON SURFACE OR IN RECESS FOR LOOP EARTHING AS REQUIRED. 11 CONST OF CABLE TRENCH 12241-AJMER LPG PLANT Meters 2000 995433 08AAACH 118B1ZC DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 12 NETWORK 12241-AJMER LPG PLANT Each 16 84733091 08AAACH							08AAACH1	Yes
11 CONST OF CABLE TRENCH 12241-AJMER LPG PLANT Meters 2000 995433 08AACH 118B1ZC DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 12 NETWORK 12241-AJMER LPG PLANT Each 16 84733091 08AAACH	CRIPT	PTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR	FACE OR IN RECESS	S FOR LOOP EARTHING AS	REQUIRED.	,	I
DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM MM DEPTH, CABLE ROUTE MARKER-GALVANIZED. 12 NETWORK 12241-AJMER LPG PLANT Each 16 84733091 08AAACH		Í					08AAACH1 118B1ZC	Yes
12 NETWORK 12241-AJMER LPG PLANT Each 16 84733091 08AAACH				D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO		VIDE, 1000
	NE.			Each	16	84733091	08AAACH1 118B1ZC	Yes
DESCRIPTION => NETWORK SWITCH; NUMBER OF PORTS:8; APPLICATION:OUTDOOR		· · · · · · · · · · · · · · · · · · ·	NUMBER OF PORTS:8; APPLICATION	ON:OUTDOOR		•		•

13	NETWORK SWITCH,MANAGED 12 PORT	12241-AJMER LPG PLANT	Set	8		08AAACH1 118B1ZC	Yes
VOLT	RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; I OWED						
14	JUNCTION BOX	12241-AJMER LPG PLANT	Each	17	995461	08AAACH1 118B1ZC	Yes
	CRIPTION => SUPPLY AND INSTAI					1	
15	FLP JUNCTION BOX	12241-AJMER LPG PLANT	Each	7	995461	08AAACH1 118B1ZC	Yes
WITH STEEL AMEN CLAM EART TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT. HARDWARE, EARTHING BOLTS, NOMENTS AND AS PER THE DIRECT IP TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHATHE OF THE APPROVAL OF THE DIMENS. (FOR 6, P. 1 SQ.MM AND 4 PAIR 1.5)	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE DD MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF	2 66 CLASS PROTECTION, TO DII B, CCOE CMRI CERTIFII ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURI ED AS PER IS - TERMINALS I CTION BOX SI OF CABLES. O T (FOR 18 P 1	E CLASS T3, S' -2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
16	GI Pole 8 MT	12241-AJMER LPG PLANT	Each	31		08AAACH1 118B1ZC	Yes
	CRIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS
17	HARD DISK DRIVE per TB cost	12241-AJMER LPG PLANT	Each	70		08AAACH1 118B1ZC	Yes
	CRIPTION => SUPPLY, INSTALLAT OR TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
18	55 inch LED TV	12241-AJMER LPG PLANT	Each	2	998734	08AAACH1 118B1ZC	Yes
DESC	CRIPTION => SUPPLY AND INSTAI	LLATION OF 55 INCH LED TV AS P	ER SPECIFICATION	ATTACHED.			
19	VIDEO MANAGEMENT SOFTWARE	12241-AJMER LPG PLANT	Each	57	998733	08AAACH1 118B1ZC	Yes
DESC	CRIPTION => MANAGEMENT SOFT	TWARE: SUPPLY AND INSTALLAT	TON OF CCTV VMS S	SOFTWARE FOR CAMERAS	LICENSE.		
20	INSTLN COMMNG TESTING CCTV SYS	12241-AJMER LPG PLANT	Lump Sum	1		08AAACH1 118B1ZC	Yes
	CRIPTION => INSTALLATION AND COORD IN THE TENDER ATTACHM		EM AND ASSOCIATI	ED ACCESSORIES AS PER T	THE TERMS A	ND CONDITIO	NS
21	Fixed Camera FL12	12435-GANDHINAGAR LPG	Each	12	85258090	24AAACH1 118B1ZI	Yes
COMI	RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS	AMERA; RECORDING S:2.8-12 MM; INGRES	RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO	PIXELS HD; IM O FRAME RAT	IAGE TE:25/30 FPS; 1	NIGHT
22	FLP Enclosur Fixed Camera F12	12435-GANDHINAGAR LPG	Each	5		24AAACH1 118B1ZI	Yes
INSTI CERT CLAS	RIPTION => PART NAME:FLAME: TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER	EARCH) APPROVED FLAME PROOF E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
23	Fixed camera motorized zoom2MP	12435-GANDHINAGAR LPG	Each	2	85258020	24AAACH1 118B1ZI	Yes
TATEOT	CRIPTION => TYPE:HD IP FIXED CARMATION:2MP,WITH MOTORIZED	TOOM AS DEED SPECIFICAL PROVISE	TITTE A TOTAL CITTED	/VERINT/HONEYWELL; MC	DDEL NUMBE	R:N/A; ADDIT	IONAL
24	Indoor (Dome) 2MP	12435-GANDHINAGAR LPG	Each	3	85258020	24AAACH1 118B1ZI	Yes
	CRIPTION => TYPE:HD IP DOME CA		IODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ION:IRF AND	MFZ LENS PIC	KUP
25	Fixed Camera FL50	12435-GANDHINAGAR LPG	Each	6	85258090	24AAACH1 118B1ZI	Yes
COMI	RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
26	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12435-GANDHINAGAR LPG	Meters	4200		24AAACH1 118B1ZI	Yes
	CRIPTION => SUPPLY OF THE FO S 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS
27	OPTICAL FIBER CABLE,SM,12 CORE	12435-GANDHINAGAR LPG	Each	4200		24AAACH1 118B1ZI	Yes
	CRIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	I/A; AS PER
28	SPLY AND LAYG OF ARMOURED CAT6	12435-GANDHINAGAR LPG	Meters	1600	995424	24AAACH1 118B1ZI	Yes
	CRIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER						
29	GI EARTHING WIRE 8SWG	12435-GANDHINAGAR LPG	Meters	1500		24AAACH1 118B1ZI	Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR	FACE OR IN RECESS	FOR LOOP EARTHING AS	REQUIRED.		
30	SPLY&LAYG OF UNARMOURED CAT6	12435-GANDHINAGAR LPG	Each	1200	995424	24AAACH1 118B1ZI	Yes
DESC	CRIPTION => PROVIDING AND LAY	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
31	CONST OF CABLE TRENCH	12435-GANDHINAGAR LPG	Meters	1800	995433	24AAACH1 118B1ZI	Yes
	CRIPTION => UNDERGROUND-CAI DEPTH, CABLE ROUTE MARKER-G.		D FILLING, BRICK L	AYING, BACKFILLING ANI	COMPACTIO		VIDE, 1000
32	NETWORK SWITCH,MANAGED,8 PORT	12435-GANDHINAGAR LPG	Each	8	84733091	24AAACH1 118B1ZI	Yes
DECC	CRIPTION => NETWORK SWITCH:	NUMBER OF BODTESS, ADDITIONT	ONOLITHOOD	•	•	•	

33	NETWORK SWITCH,MANAGED 12 PORT	12435-GANDHINAGAR LPG	Set	4		24AAACH1 118B1ZI	Yes
VOLT	RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; I OWED						
34	JUNCTION BOX	12435-GANDHINAGAR LPG	Each	15	995461	24AAACH1 118B1ZI	Yes
	CRIPTION => SUPPLY AND INSTAI				I	ı	
35	FLP JUNCTION BOX	12435-GANDHINAGAR LPG	Each	3	995461	24AAACH1 118B1ZI	Yes
WITH STEEL AMEN	CRIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT L HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I CTION OF ENGINEER-IN-CHARGE	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA	66 CLASS PROTECTION, TI DII B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY	EMPERATURI ED AS PER IS - TERMINALS F	E CLASS T3, S' 2148 WITH LA FOR SUITABLE	ΓAINLESS ATEST E ENTRIES.
TAKE	H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENS (FOR 6 ,P 1 SQ.MM AND 4 PAIR 1 S	IONS OF THIS JUNCTION BOX FRO	OM ENGINEER-IN-CH	HARGE. 2 NO 1 1/2 INCH NP	Γ (FOR 18 P 1	SQ.MM CABL	E), 4 NO 3/4
36	GI Pole 8 MT	12435-GANDHINAGAR LPG	Each	24		24AAACH1 118B1ZI	Yes
	CRIPTION => PART NAME:CAMER ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS
37	HARD DISK DRIVE per TB cost	12435-GANDHINAGAR LPG	Each	60		24AAACH1 118B1ZI	Yes
	CRIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	TON, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
38	55 inch LED TV	12435-GANDHINAGAR LPG	Each	2	998734	24AAACH1 118B1ZI	Yes
DESC	RIPTION => SUPPLY AND INSTAI	LLATION OF 55 INCH LED TV AS P	ER SPECIFICATION	ATTACHED.			
39	VIDEO MANAGEMENT SOFTWARE	12435-GANDHINAGAR LPG	Each	36	998733	24AAACH1 118B1ZI	Yes
	CRIPTION => MANAGEMENT SOFT		ION OF CCTV VMS S	SOFTWARE FOR CAMERAS	LICENSE.	1	
40	INSTLN COMMNG TESTING CCTV SYS	12435-GANDHINAGAR LPG	Lump Sum	1		24AAACH1 118B1ZI	Yes
	RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN		EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS A	ND CONDITIO	NS
41	Fixed Camera FL12	12455-HAZIRA-LPG	Each	12	85258090	24AAACH1 118B1ZI	Yes
COME	PRIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS	MERA; RECORDING 5:2.8-12 MM; INGRES	RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO	IXELS HD; IM O FRAME RAT	AGE E:25/30 FPS; 1	NIGHT
42	FLP Enclosur Fixed Camera F12	12455-HAZIRA-LPG	Each	6		24AAACH1 118B1ZI	Yes
INSTI CERT CLAS	RIPTION => PART NAME:FLAME: TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER	EARCH) APPROVED FLAME PROOI E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA. IIB. T6 IS/IEC600	F ALUMINA ELECTR PPE OF EX-PROTECT 79-0:2004, INGRESS II	ICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001: F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
43	Fixed camera motorized zoom2MP	12455-HAZIRA-LPG	Each	1	85258020	24AAACH1 118B1ZI	Yes
TATEOT	CRIPTION => TYPE:HD IP FIXED CA	GOOM AS DED SPECIFICATION S	TERM AREA OTTER	/VERINT/HONEYWELL; MC	DEL NUMBE		IONAL
44	Indoor (Dome) 2MP	12455-HAZIRA-LPG	Each	3	85258020	24AAACH1 118B1ZI	Yes
	I CRIPTION => TYPE:HD IP DOME C. CE; DETAILED SPECIFICATION SH		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	!	KUP
45	Fixed camera Motorized zoom 4K		Each	2		24AAACH1 118B1ZI	Yes
	I CRIPTION => TYPE:FIXED NON FL CIONED IN TENDER MUST BE FOLI		ACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS		TONS
46	Fixed Camera FL50	12455-HAZIRA-LPG	Each	3	85258090	24AAACH1 118B1ZI	Yes
COMF	RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS				AGE	NIGHT
47	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12455-HAZIRA-LPG	Meters	2800		24AAACH1 118B1ZI	Yes
	CRIPTION => SUPPLY OF THE FO S 7098 PART-1 AND AS PER SPECII				THED STEEL		CABLES AS
48	OPTICAL FIBER CABLE,SM,12 CORE	12455-HAZIRA-LPG	Each Each	2400		24AAACH1 118B1ZI	Yes
	CRIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	!	I/A; AS PER
49	SPLY AND LAYG OF ARMOURED CAT6	12455-HAZIRA-LPG	Meters	1200	995424	24AAACH1 118B1ZI	Yes
	CRIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER					RING:GALVA	
50	GI EARTHING WIRE 8SWG	12455-HAZIRA-LPG	Meters	1000	,.o. wiwio. APP	24AAACH1	Yes
DESC	L RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G I WIDE ON SUD	FACE OR IN DECESS	S FOR LOOP EARTHING AS	REULIBED L	118B1ZI	
51	SPLY&LAYG OF UNARMOURED CAT6	12455-HAZIRA-LPG	Each Each	800	995424	24AAACH1 118B1ZI	Yes
DESC	CRIPTION => PROVIDING AND LA	L YING AMP CAT 6 CABLE FOR LAN	L I WIRING (D-LINK/E)	UUIVALEN MAKES AS PER	INSTRUCTION		ER-IN-
CHAR 52		12455-HAZIRA-LPG	Meters	1600	995433	24AAACH1	Yes
<u> </u>			*			118B1ZI	

	RIPTION => UNDERGROUND-CAR EPTH, CABLE ROUTE MARKER-GA	BLE TRENCH: EXCAVATION, SAN ALVANIZED.	D FILLING, BRICK L	AYING, BACKFILLING AND	O COMPACTIO	ON, 1800 MM V	VIDE, 1000
53	NETWORK SWITCH,MANAGED,8 PORT	12455-HAZIRA-LPG	Each	12	84733091	24AAACH1 118B1ZI	Yes
	RIPTION => NETWORK SWITCH; I	, , , , , , , , , , , , , , , , , , ,		T.			
54	NETWORK SWITCH,MANAGED 12 PORT	12455-HAZIRA-LPG	Set	4		24AAACH1 118B1ZI	Yes
VOLT	RIPTION => SWITCH,NETWORK; I AGE:N/A; MANUFACTURER:N/A; N DWED						
55	JUNCTION BOX	12455-HAZIRA-LPG	Each	1	995461	24AAACH1 118B1ZI	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF WEATHER PROOF JU	NCTION BOX AS PE	R TENDER DOCUMENT.			
56	FLP JUNCTION BOX	12455-HAZIRA-LPG	Each	12	995461	24AAACH1 118B1ZI	Yes
WITH STEEL AMEN CLAM EART TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6, P. I SQ.MM AND 4 PAIR I S	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE DD MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IPFOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF	2 66 CLASS PROTECTION, TI DI IB, CCOE CMRI CERTIFIE ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURI ED AS PER IS - TERMINALS I CTION BOX SI OF CABLES. O I (FOR 18 P 1	E CLASS T3, S -2148 WITH LA FOR SUITABL HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. EXTERNAL S SHALL E), 4 NO 3/4
57	GI Pole 8 MT	12455-HAZIRA-LPG	Each	18		24AAACH1 118B1ZI	Yes
	RIPTION => PART NAME:CAMERA ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODI	EL:N/A; AS
58	HARD DISK DRIVE per TB cost	12455-HAZIRA-LPG	Each	40		24AAACH1 118B1ZI	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	FOR A PERIOD	OF 90 DAYS
59	55 inch LED TV	12455-HAZIRA-LPG	Each	2	998734	24AAACH1 118B1ZI	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION	ATTACHED.	I	, · · · - · - ·	-
60	VIDEO MANAGEMENT	12455-HAZIRA-LPG	Each	35	998733	24AAACH1	Yes
	SOFTWARE					118B1ZI	
	RIPTION => MANAGEMENT SOFT				LICENSE.	1	
61	INSTLN COMMNG TESTING CCTV SYS	12455-HAZIRA-LPG	Lump Sum	1		24AAACH1 118B1ZI	Yes
	RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN		EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS A	ND CONDITIC	NS
62	Fixed Camera FL12	12507-INDORE LPG PLANT	Each	15	85258090	23AAACH1 118B1ZK	Yes
COMF	RIPTION => IP/NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S	TREAM; FOCAL LENGTH OF LENS				IAGE	NIGHT
63	N:REQUIRED; CAMERA SHALL BE PTZ CAMERA	12507-INDORE LPG PLANT	Each	1		23AAACH1	Yes
	RIPTION => TYPE:PTZ NON FLAM	IEPROOF CAMERA; MANUFACTU	RER:N/A; MODEL N	L UMBER:N/A; IN ADDITION 7	TO THIS, SPEC	118B1ZK CIFICATIONS	MENTIONED
64	NDER MUST BE FOLLOWED FLP Enclosur Fixed Camera F12	12507-INDORE LPG PLANT	Each	8		23AAACH1	Yes
04	TEI Eliciosui Fixed Gailleia Fiz	12307-INDOILE EI GT EAINT	Lacii	0		118B1ZK	163
INSTI CERT CLAS	RIPTION => PART NAME:FLAMEF TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABL SIFICATION:ZONE I AND ZONE 2; DER COATING; EARTHLING:INTER	ARCH) APPROVED FLAME PROOF TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TON:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
65	Fixed camera motorized zoom2MP	12507-INDORE LPG PLANT	Each	2	85258020	23AAACH1 118B1ZK	Yes
	RIPTION => TYPE:HD IP FIXED CARMATION:2MP,WITH MOTORIZED			/VERINT/HONEYWELL; MC	DDEL NUMBE	R:N/A; ADDIT	IONAL
66	Indoor (Dome) 2MP	12507-INDORE LPG PLANT	Each	4	85258020	23AAACH1 118B1ZK	Yes
	RIPTION => TYPE:HD IP DOME CACE; DETAILED SPECIFICATION SHI		IODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND		CKUP
67		12507-INDORE LPG PLANT	Each	3		23AAACH1 118B1ZK	Yes
	RIPTION => TYPE:FIXED NON FLA		FACTURER:N/A; MOI	I DEL NUMBER:N/A; IN ADDI	TION TO THIS		TIONS
68	TONED IN TENDER MUST BE FOLI Fixed Camera FL50	12507-INDORE LPG PLANT	Each	5	85258090	23AAACH1	Yes
	RIPTION => IP/ NETWORK CCTV;						
VISIO	RESSION:H.264/MPEG-4, TRIPLE S' N:REQUIRED; CAMERA SHALL BE	ONVIF COMPLIANT WITH POE.	, 1	, T	FRAME RAT	<u> </u>	
69	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12507-INDORE LPG PLANT	Meters	5000		23AAACH1 118B1ZK	Yes
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECIF				THED STEEL	ARMOURED	CABLES AS
70	OPTICAL FIBER CABLE,SM,12 CORE	12507-INDORE LPG PLANT	Each	4500		23AAACH1 118B1ZK	Yes
	RIPTION => PART NAME:OFC CAL ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	FACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	N/A; AS PER
71	SPLY AND LAYG OF ARMOURED CAT6	12507-INDORE LPG PLANT	Meters	1500	995424	23AAACH1 118B1ZK	Yes
	RIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER						

72	GI EARTHING WIRE 8SWG	12507-INDORE LPG PLANT	Meters	1500		23AAACH1 118B1ZK	Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR	RFACE OR IN RECESS	FOR LOOP EARTHING AS	REQUIRED.		
73	SPLY&LAYG OF UNARMOURED CAT6	12507-INDORE LPG PLANT	Each	1100	995424	23AAACH1 118B1ZK	Yes
DESC CHAR	CRIPTION => PROVIDING AND LAY LGE)	YING AMP CAT 6 CABLE FOR LAN	N WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
74	CONST OF CABLE TRENCH	12507-INDORE LPG PLANT	Meters	3000	995433	23AAACH1 118B1ZK	Yes
	CRIPTION => UNDERGROUND-CAI DEPTH, CABLE ROUTE MARKER-G.		D FILLING, BRICK L	AYING, BACKFILLING ANI	COMPACTIO	ON, 1800 MM V	VIDE, 1000
75	NETWORK SWITCH,MANAGED,8 PORT	12507-INDORE LPG PLANT	Each	10	84733091	23AAACH1 118B1ZK	Yes
DESC	RIPTION => NETWORK SWITCH;	NUMBER OF PORTS:8; APPLICATI	ON:OUTDOOR			<u>'</u>	
76	NETWORK SWITCH,MANAGED 12 PORT	12507-INDORE LPG PLANT	Set	4		23AAACH1 118B1ZK	Yes
VOLT	RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; N OWED						
77	JUNCTION BOX	12507-INDORE LPG PLANT	Each	20	995461	23AAACH1 118B1ZK	Yes
DESC	RIPTION => SUPPLY AND INSTAI	LATION OF WEATHER PROOF JU	NCTION BOX AS PE	R TENDER DOCUMENT.			
78	FLP JUNCTION BOX	12507-INDORE LPG PLANT	Each	12	995461	23AAACH1 118B1ZK	Yes
WITH	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT L HARDWARE, EARTHING BOLTS,	TOM TYPE CABLE ENTRIES, LM 6	CONSTRUCTION, IF	66 CLASS PROTECTION, T	EMPERATURI	E CLASS T3, S	TAINLESS
AMEN	NDMENTS AND AS PER THE DIRECT IP TYPE TERMINALS OF APPROVE	CTION OF ENGINEER-IN-CHARGE	JUNCTION BOX SHA	LL INCLUDE NECESSARY	TERMINALS I	FOR SUITABL	E ENTRIES.
EART	H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENS:	ALL BE COMPLÈTE WITH REQUIR	ED SHORTING LINK	S FOR LOOP IN/LOOP OUT	OF CABLES. O	CONTRACTOR	SHALL
INCH 79	(FOR 6 ,P 1 SQ.MM AND 4 PAIR 1 S GI Pole 8 MT	SQ.MM CABLE), 6 NOS 1/2 INCH (F 12507-INDORE LPG PLANT	OR 2 P 1 SQ.MM ANI	1 P 1 SQ.MM CABLE) NPT 19	ENTRY. 75 TE	23AAACH1	Yes
DESC	CRIPTION => PART NAME:CAMER.	 A POLE; PART NUMBER:N/A; MAN	 	OUIPMENT NAME:CCTV S	YSTEM; EQUI	118B1ZK PMENT MODI	EL:N/A; AS
	ENDER DOCUMENT HARD DISK DRIVE per TB cost	12507-INDORE LPG PLANT	Each	50		23AAACH1	Yes
	CRIPTION => SUPPLY, INSTALLAT				M CAMEDA E	118B1ZK	
	R TECHNICAL SPECIFICATION.	ION, 1E31ING AND COMMISSION	IING OF HDD/NAS FC	JR STORAGE OF DATA FRO	IN CAMERA F	OK A PERIOL	OF 90 DA 13
81	55 inch LED TV	12507-INDORE LPG PLANT	Each	2	998734	23AAACH1 118B1ZK	Yes
	RIPTION => SUPPLY AND INSTAI					1	1
82	VIDEO MANAGEMENT SOFTWARE	12507-INDORE LPG PLANT	Each	44	998733	23AAACH1 118B1ZK	Yes
	CRIPTION => MANAGEMENT SOFT				LICENSE.	T	
83	INSTLN COMMNG TESTING CCTV SYS	12507-INDORE LPG PLANT	Lump Sum	1		23AAACH1 118B1ZK	Yes
	CRIPTION => INSTALLATION AND TIONED IN THE TENDER ATTACHM		EM AND ASSOCIAT	ED ACCESSORIES AS PER T	THE TERMS A	ND CONDITIC	NS
84	Fixed Camera FL12	12520-BHOPAL-LPG	Each	15	85258090	23AAACH1 118B1ZK	Yes
COME	RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
85	FLP Enclosur Fixed Camera F12	12520-BHOPAL-LPG	Each	6		23AAACH1 118B1ZK	Yes
	CRIPTION => PART NAME:FLAMER TUTE OF MINING AND FUEL RESE						
CERT	IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	E; TECHNICAL SPECIFICATION: TY	YPE OF EX-PROTECT	TION:EEX-D TYPE, IS/IEC60	079-1:2007, ZO	NE	
POWI 86	DER COATING; EARTHLING:INTER Fixed camera motorized	NAL -01 NO. EXTERNAL -02 NOS.; 12520-BHOPAL-LPG	; CABLE ENTRY: AS	PER REQUIRE; HARDWARE 2	85258020	STEEL 23AAACH1	Yes
DESC	zoom2MP CRIPTION => TYPE:HD IP FIXED CA	 AMERA: MANUFACTURER:BOSCF	H/SONY/AXIS/PELCO	 /VERINT/HONEYWELL: MC	DEL NUMBE	118B1ZK R:N/A: ADDIT	IONAL
	RMATION:2MP,WITH MOTORIZED Indoor (Dome) 2MP			3	85258020	23AAACH1	Yes
	CRIPTION => TYPE:HD IP DOME CA					118B1ZK	
	CE; DETAILED SPECIFICATION SH Fixed camera Motorized zoom 4K	EET ATTACHED.	1	3	JULIAN AND	23AAACH1	Yes
			Each		TION TO TY	118B1ZK	
MENT	CRIPTION => TYPE:FIXED NON FL. TIONED IN TENDER MUST BE FOLI T	LOWED	1	1	1	<u></u>	
89	Fixed Camera FL50	12520-BHOPAL-LPG	Each	9	85258090	23AAACH1 118B1ZK	Yes
COME	CRIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
90	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12520-BHOPAL-LPG	Meters	885		23AAACH1 118B1ZK	Yes
	CRIPTION => SUPPLY OF THE FO S 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS
91	OPTICAL FIBER CABLE,SM,12 CORE	12520-BHOPAL-LPG	Each	675		23AAACH1 118B1ZK	Yes
	CRIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	FACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPM		N/A; AS PER

92	SPLY AND LAYG OF ARMOURED CAT6	12520-BHOPAL-LPG	Meters	2400	995424	23AAACH1 118B1ZK	Yes
		G OF CAT6 ARMOURED NETWORI ::23 AWG4. TEMPERATURE RATIN					
93	GI EARTHING WIRE 8SWG	12520-BHOPAL-LPG	Meters	1545		23AAACH1 118B1ZK	Yes
		ING 8 SWG DIA G.I. WIRE ON SUR					
94	SPLY&LAYG OF UNARMOURED CAT6	12520-BHOPAL-LPG	Each	200	995424	23AAACH1 118B1ZK	Yes
DESC CHAR		YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
95	CONST OF CABLE TRENCH	12520-BHOPAL-LPG	Meters	1770	995433	23AAACH1 118B1ZK	Yes
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G.	BLE TRENCH: EXCAVATION, SAN ALVANIZED.	D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIC	N, 1800 MM V	VIDE, 1000
96	NETWORK SWITCH,MANAGED,8 PORT	12520-BHOPAL-LPG	Each	9	84733091	23AAACH1 118B1ZK	Yes
	RIPTION => NETWORK SWITCH;	NUMBER OF PORTS:8; APPLICATI			1	· · · · · · · · · · · · · · · · · · ·	1
97	NETWORK SWITCH,MANAGED 12 PORT	12520-BHOPAL-LPG	Set	2		23AAACH1 118B1ZK	Yes
	AGE:N/A; MANUFACTURER:N/A; I	PORT,QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED					
98	JUNCTION BOX	12520-BHOPAL-LPG	Each	6	995461	23AAACH1 118B1ZK	Yes
DESC 99	RIPTION => SUPPLY AND INSTAI FLP JUNCTION BOX	LLATION OF WEATHER PROOF JU 12520-BHOPAL-LPG	NCTION BOX AS PEI	R TENDER DOCUMENT.	995461	23AAACH1	Yes
		ND COMMISSIONING OF 12 WAY F				118B1ZK	
WITH STEEL	TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS,	ND COMMISSIONING OF 12 WAT F TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE.	CONSTRUCTION, IP FOR GROUP II A AND	P 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE	EMPERATURE ED AS PER IS -	E CLASS T3, ST 2148 WITH LA	TAINLESS ATEST
CLAM EART	IP TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA	ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR	L BE PROVIDED FOR ED SHORTING LINK	ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT	CTION BOX SH OF CABLES. C	HALL HAVE E	XTERNAL SHALL
		IONS OF THIS JUNCTION BOX FRO SQ.MM CABLE), 6 NOS 1/2 INCH (F					
100	GI Pole 8 MT	12520-BHOPAL-LPG	Each	30		23AAACH1 118B1ZK	Yes
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS
101	HARD DISK DRIVE per TB cost	12520-BHOPAL-LPG	Each	70		23AAACH1 118B1ZK	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	TION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
102	55 inch LED TV	12520-BHOPAL-LPG	Each	2	998734	23AAACH1 118B1ZK	Yes
DESC		LLATION OF 55 INCH LED TV AS P				1	
103	VIDEO MANAGEMENT SOFTWARE	12520-BHOPAL-LPG	Each	49	998733	23AAACH1 118B1ZK	Yes
	RIPTION => MANAGEMENT SOFT	TWARE: SUPPLY AND INSTALLAT	TON OF CCTV VMS S Lump Sum	SOFTWARE FOR CAMERAS		23AAACH1	Ves
	CCTV SYS			ED ACCESSODIES AS DED T		118B1ZK	
MENT	TIONED IN THE TENDER ATTACHN		T	T	1	ı	1
105	Fixed Camera FL12	12504-JABALPUR LPG PLANT	Each	10	85258090	23AAACH1 118B1ZK	Yes
COMP		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENG ONVIF COMPLIANT WITH POE					NIGHT
106	FLP Enclosur Fixed Camera F12	12504-JABALPUR LPG PLANT	Each	3		23AAACH1 118B1ZK	Yes
INSTI	TUTE OF MINING AND FUEL RESE	PROOF ENCLOSURE; PART MATER EARCH) APPROVED FLAME PROOI	F ALUMINA ELECTR	ICAL ENCLOSURE WITH V	ALID TEST CE	ERTIFICATES.	
CLASS	SIFICATION: ZONE 1 AND ZONE 2;	E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600° NAL -01 NO. EXTERNAL -02 NOS.;	79-0:2004, INGRESS I	P PROTECTION: IP66 IS/IEC6	50529-1:2001; F	PAINT:EPOXY	POLYESTER
107	Fixed camera motorized zoom2MP	12504-JABALPUR LPG PLANT	Each	2	85258020	23AAACH1 118B1ZK	Yes
		AMERA; MANUFACTURER:BOSCF ZOOM; AS PER SPECIFICATION S		/VERINT/HONEYWELL; MC	DDEL NUMBE	R:N/A; ADDIT	IONAL
108	Indoor (Dome) 2MP	12504-JABALPUR LPG PLANT	Each	3	85258020	23AAACH1 118B1ZK	Yes
	RIPTION => TYPE:HD IP DOME CA CE; DETAILED SPECIFICATION SH	AMERA; MANUFACTURER:N/A; M	ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	!	CKUP
109	Fixed camera Motorized zoom 4K		Each	2		23AAACH1	Yes
		L AME PROOF 4K CAMERA; MANUF	L FACTURER:N/A; MOI	L DEL NUMBER:N/A; IN ADDI	L TION TO THIS	118B1ZK S, SPECIFICAT	TIONS
MENT 110	TONED IN TENDER MUST BE FOLI Fixed Camera FL50	LOWED 12504-JABALPUR LPG PLANT	Each	4	85258090	23AAACH1	Yes
		TYPE:DAY AND NIGHT FIXED CA					
COMP	RESSION:H.264/MPEG-4, TRIPLE Ś N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS E ONVIF COMPLIANT WITH POE.	S:12-50 MM; INGRES	S PROTECTION:IP66; VIDEC		E:25/30 FPS; N	
111	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12504-JABALPUR LPG PLANT	Meters	1200		23AAACH1 118B1ZK	Yes
		LLOWING 1100 VOLTS COPPER FICATIONS OF THIS TENDER.SUPI			THED STEEL	ARMOURED	CABLES AS

	OPTICAL FIBER CABLE,SM,12 CORE	12504-JABALPUR LPG PLANT	Each	1200		23AAACH1 118B1ZK	Yes
	CRIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	I/A; AS PER
113	SPLY AND LAYG OF ARMOURED CAT6	12504-JABALPUR LPG PLANT	Meters	2300	995424	23AAACH1 118B1ZK	Yes
	RIPTION => SUPPLY AND LAYING URED3. CONDUCTOR DIAMETER						
114	GI EARTHING WIRE 8SWG	12504-JABALPUR LPG PLANT	Meters	1000		23AAACH1 118B1ZK	Yes
	RIPTION => PROVIDING AND FIX					T00 A A A OU IA	l.,
115	SPLY&LAYG OF UNARMOURED CAT6	12504-JABALPUR LPG PLANT	Each	200	995424	23AAACH1 118B1ZK	Yes
DESC CHAR	CRIPTION => PROVIDING AND LA'GE)	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E)	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
116	CONST OF CABLE TRENCH	12504-JABALPUR LPG PLANT	Meters	3500	995433	23AAACH1 118B1ZK	Yes
	CRIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G.		D FILLING, BRICK L	AYING, BACKFILLING ANI	O COMPACTIO	ON, 1800 MM W	VIDE, 1000
117	NETWORK SWITCH,MANAGED,8 PORT	12504-JABALPUR LPG PLANT	Each	8	84733091	23AAACH1 118B1ZK	Yes
DESC	CRIPTION => NETWORK SWITCH; JUNCTION BOX	NUMBER OF PORTS:8; APPLICATI 12504-JABALPUR LPG PLANT	ON:OUTDOOR Each	1	995461	23AAACH1	Yes
					000101	118B1ZK	100
119	RIPTION => SUPPLY AND INSTAI FLP JUNCTION BOX	12504-JABALPUR LPG PLANT	Each Each	8	995461	23AAACH1 118B1ZK	Yes
WITH STEEL AMEN CLAM EART TAKE	I RIPTION => SUPPLY, INSTALL AT TERMINALS WITH TOP AND BOT L HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL, JUNCTION BOX SHA THE APPROVAL OF THE DIMENS (FOR 6, P 1 SO.MM AND 4 PAIR 1 S	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE D MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IPFOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF	P 66 CLASS PROTECTION, TO DII B, CCOE CMRI CERTIFII ILL INCLUDE NECESSARY A ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURI ED AS PER IS - TERMINALS I CTION BOX SI OF CABLES. O T (FOR 18 P 1	PROOF JUNC: E CLASS T3, ST 2148 WITH LA FOR SUITABLE HALL HAVE E. CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL . SHALL E), 4 NO 3/4
120	GI Pole 8 MT	12504-JABALPUR LPG PLANT	Each	8		23AAACH1 118B1ZK	Yes
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS
121	HARD DISK DRIVE per TB cost	12504-JABALPUR LPG PLANT	Each	20		23AAACH1 118B1ZK	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F		OF 90 DAYS
122	55 inch LED TV	12504-JABALPUR LPG PLANT	Each	2	998734	23AAACH1	Yes
				[-		118B1ZK	
	CRIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	PER SPECIFICATION	ATTACHED.		118B1ZK	<u> </u>
DESC 123					998733		Yes
123 DESC	RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT	ER SPECIFICATION Each TON OF CCTV VMS S	ATTACHED. 34 SOFTWARE FOR CAMERAS	998733	23AAACH1 118B1ZK	
123 DESC 124	RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT	Each TON OF CCTV VMS S	ATTACHED. 34 SOFTWARE FOR CAMERAS 1	998733 LICENSE.	23AAACH1 118B1ZK 23AAACH1 23AAACH1 118B1ZK	Yes
123 DESC 124 DESC MENT	RIPTION => SUPPLY AND INSTAI VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACH	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYST MENTS.	ER SPECIFICATION Each TON OF CCTV VMS S Lump Sum TEM AND ASSOCIATION	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T	998733 LICENSE. THE TERMS A	23AAACH1 118B1ZK 23AAACH1 118B1ZK 23AAACH1 118B1ZK ND CONDITIO	Yes
123 DESC 124 DESC MENT 125	RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN Fixed Camera FL12	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYST MENTS. 12248-KOTA LPG PLANT	ER SPECIFICATION Each TON OF CCTV VMS S Lump Sum TEM AND ASSOCIATION Each	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T	998733 LICENSE. THE TERMS AI 85258090	23AAACH1 118B1ZK 23AAACH1 118B1ZK 23AAACH1 118B1ZK ND CONDITIO 08AAACH1 118B1ZC	Yes
DESC 124 DESC MENT 125 DESC COME	RIPTION => SUPPLY AND INSTAI VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACH	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYST MENTS. 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENS	Each TON OF CCTV VMS S Lump Sum TEM AND ASSOCIATION Each Lach Lach Lach Lach Lach Lach Lach L	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T 10 GRESOLUTION:1920X1080 P	998733 LICENSE. THE TERMS AI 85258090 DIXELS HD; IM	23AAACH1 118B1ZK 23AAACH1 118B1ZK ND CONDITIO 08AAACH1 118B1ZC	Yes NS Yes
DESC 124 DESC MENT 125 DESC COME	RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYSTMENTS. 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGTH OF LENGTH OF COMPLIANT WITH POE	Each TON OF CCTV VMS S Lump Sum TEM AND ASSOCIATION Each Lach Lach Lach Lach Lach Lach Lach L	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T 10 GRESOLUTION:1920X1080 P	998733 LICENSE. THE TERMS AI 85258090 DIXELS HD; IM	23AAACH1 118B1ZK 23AAACH1 118B1ZK ND CONDITIO 08AAACH1 118B1ZC	Yes NS Yes
DESC MENTI 125 DESC COME VISIO 126 DESC INSTIT CERTI CLASS	RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFI INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYST MENTS. 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LEN: CONVIF COMPLIANT WITH POE 12248-KOTA LPG PLANT PROOF ENCLOSURE; PART MATEI ARCH) APPROVED FLAME PROO! S; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	Each Each	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T 10 G RESOLUTION:1920X1080 PS PROTECTION:1P66; VIDEO 4 MINUM ALLOY LM6; PART IICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:P66 IS/IEC600 P P PROTECTION:P66 IS/IEC600 P P P P P P P P P P P P P P P P P P	998733 LICENSE. THE TERMS AI 85258090 PIXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CE 179-1:2007, ZO 50529-1:2001; F	23AAACH1 118B1ZK 23AAACH1 118B1ZK ND CONDITIO 08AAACH1 118B1ZC IAGE TE:25/30 FPS; N 08AAACH1 118B1ZC PLY CIMFR(C ERTIFICATES. NE PAINT:EPOXY	Yes NS Yes NIGHT Yes ENTRAL ALSO PESO
DESC MENTI 125 DESC COME VISIO 126 DESC INSTIT CERTI CLASS	RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMING TESTING CCTV SYS RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI TUTE OF MINING AND FUEL RESE BIFICATION SHALL BE AVAILABLE SIFICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2;	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYST MENTS. 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LEN: CONVIF COMPLIANT WITH POE 12248-KOTA LPG PLANT PROOF ENCLOSURE; PART MATEI ARCH) APPROVED FLAME PROO! S; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	Each Each	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T 10 G RESOLUTION:1920X1080 PS PROTECTION:1P66; VIDEO 4 MINUM ALLOY LM6; PART IICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:P66 IS/IEC600 P P PROTECTION:P66 IS/IEC600 P P P P P P P P P P P P P P P P P P	998733 LICENSE. THE TERMS AI 85258090 PIXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CE 179-1:2007, ZO 50529-1:2001; F	23AAACH1 118B1ZK 23AAACH1 118B1ZK ND CONDITIO 08AAACH1 118B1ZC IAGE TE:25/30 FPS; N 08AAACH1 118B1ZC PLY CIMFR(C ERTIFICATES. NE PAINT:EPOXY	Yes NS Yes NIGHT Yes ENTRAL ALSO PESO
DESC MENT 125 DESC COME VISIO 126 DESC INSTIT CERT CLASS POWE 127 DESC	RIPTION => SUPPLY AND INSTAIL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND IONED IN THE TENDER ATTACHM Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI TUTE OF MINING AND FUEL RESE IFICATION:ZONE I AND ZONE 2; SER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP RIPTION => TYPE:HD IP FIXED CAMERA SIMPLICATION SHALL SERIES AND SOME 2; FIXED CAMERA SHALL SERIES AND S	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYSTMENTS. 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENSE ONVIF COMPLIANT WITH POE 12248-KOTA LPG PLANT PROOF ENCLOSURE; PART MATEL ARCH) APPROVED FLAME PROOF ENCLOSURE; PART MATEL ARCH) NO. EXTERNAL -02 NOS.; 12248-KOTA LPG PLANT	Each	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T 10 GRESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO 4 MINUM ALLOY LM6; PART LICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IECC PER REQUIRE; HARDWARE 1	998733 LICENSE. THE TERMS AI 85258090 PIXELS HD; IM O FRAME RAT Y SHALL SUP ALID TEST CH 079-1:2007, ZO 0529-1:2001; FB: STAINLESS 85258020	23AAACH1 118B1ZK 23AAACH1 118B1ZK ND CONDITIO 08AAACH1 118B1ZC IAGE TE:25/30 FPS; I 08AAACH1 118B1ZC PLY CIMFR(C ERTIFICATES. NE PLY CIMFR(C ERTIFICATES. NE PLY STEEL 08AAACH1 118B1ZC	Yes NS Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes
DESC MENT 125 DESC COME VISIO 126 DESC INSTIT CERT CLASS POWE 127 DESC	RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYSTMENTS. 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENSE ONVIF COMPLIANT WITH POE 12248-KOTA LPG PLANT PROOF ENCLOSURE; PART MATEL ARCH) APPROVED FLAME PROOF ENCLOSURE; PART MATEL ARCH) NO. EXTERNAL -02 NOS.; 12248-KOTA LPG PLANT	Each	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T 10 GRESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO 4 MINUM ALLOY LM6; PART LICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IECC PER REQUIRE; HARDWARE 1	998733 LICENSE. THE TERMS AI 85258090 PIXELS HD; IM O FRAME RAT Y SHALL SUP ALID TEST CH 079-1:2007, ZO 0529-1:2001; FB: STAINLESS 85258020	23AAACH1 118B1ZK 23AAACH1 118B1ZK ND CONDITIO 08AAACH1 118B1ZC IAGE TE:25/30 FPS; I 08AAACH1 118B1ZC PLY CIMFR(C ERTIFICATES. NE PLY CIMFR(C ERTIFICATES. NE PLY STEEL 08AAACH1 118B1ZC	Yes NS Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes
DESC MENTI 125 DESC COME VISIO 126 DESC INSTIT CLAS. POWE 127 DESC INFOE 128	RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMING TESTING CCTV SYS RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI TUTE OF MINING AND FUEL RESE IFICATION:ZONE I AND ZONE 2; DER COATING; EARTHLING:INTER Fixed camera motorized ZOMEN => TYPE:HD IP FIXED CA RMATION:ZMP,WITH MOTORIZED INDOM SMP	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYST MENTS. 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS CONVIF COMPLIANT WITH POE 12248-KOTA LPG PLANT PROOF ENCLOSURE; PART MATEI ACHACH) APPROVED FLAME PROOD STECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600 NAL -01 NO. EXTERNAL -02 NOS.; 12248-KOTA LPG PLANT AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S 12248-KOTA LPG PLANT AMERA; MANUFACTURER:BOSCH AMERA; MANUFACTURER:BOSCH	Each Each Each EM AND ASSOCIATE Each	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T 10 G RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO 4 MINUM ALLOY LM6; PART LICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6 PER REQUIRE; HARDWARE 1 //VERINT/HONEYWELL; MC	998733 LICENSE. THE TERMS AI 85258090 EXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CF 079-1:2007, ZO 50529-1:2001; F E: STAINLESS 85258020 DDEL NUMBER 85258020	23AAACH1 118B1ZK 23AAACH1 118B1ZK ND CONDITIO 08AAACH1 118B1ZC IAGE FE:25/30 FPS; I 08AAACH1 118B1ZC PPLY CIMFR(CI PPLY CI PPLY CIMFR(CI PPLY CI PPLY CI PPL	Yes NS Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes
DESC MENTI 125 DESC COME VISIO 126 DESC INSTIT CLAS. POWE 127 DESC INFOE 128	RIPTION => SUPPLY AND INSTAIL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFI INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND HONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP RIPTION => TYPE:HD IP FIXED C. RMATION:2MP, WITH MOTORIZED INDOOR (Dome) 2MP	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYST MENTS. 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS CONVIF COMPLIANT WITH POE 12248-KOTA LPG PLANT PROOF ENCLOSURE; PART MATEI ARCH) APPROVED FLAME PROOD S; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600 NAL -01 NO. EXTERNAL -02 NOS.; 12248-KOTA LPG PLANT AMERA; MANUFACTURER:BOSCE ZOOM; AS PER SPECIFICATION S 12248-KOTA LPG PLANT AMERA; MANUFACTURER:BOSCE ZOOM; AS PER SPECIFICATION S 12248-KOTA LPG PLANT AMERA; MANUFACTURER:N/A; MEET ATTACHED.	Each Each Each EM AND ASSOCIATE Each	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T 10 G RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO 4 MINUM ALLOY LM6; PART LICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6 PER REQUIRE; HARDWARE 1 //VERINT/HONEYWELL; MC	998733 LICENSE. THE TERMS AI 85258090 EXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CF 079-1:2007, ZO 50529-1:2001; F E: STAINLESS 85258020 DDEL NUMBER 85258020	23AAACH1 118B1ZK 23AAACH1 118B1ZK ND CONDITIO 08AAACH1 118B1ZC IAGE FE:25/30 FPS; I 08AAACH1 118B1ZC PPLY CIMFR(CI PPLY CI PPLY CIMFR(CI PPLY CI PPLY CI PPL	Yes NS Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes
DESC DESC DESC COMENTI 125 DESC COMENTI 126 DESC CINSTIT CERT CLASS POWII 127 DESC INFOI 128 DESC INFOI 129 DESC DEVICED	RIPTION => SUPPLY AND INSTAIL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAME! TUTE OF MINING AND FUEL RESE IFICATION:ZONE 1 AND ZONE 2; PER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP RIPTION => TYPE:HD IP FIXED C. REMATION:2MP, WITH MOTORIZED INDOOR 1 TYPE:HD IP DOME C. CE; DETAILED SPECIFICATION SH Fixed camera Motorized zoom 4K RIPTION => TYPE:FIXED NON FL.	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYST MENTS. 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LEN: CONVIF COMPLIANT WITH POE 12248-KOTA LPG PLANT PROOF ENCLOSURE: PART MATEL ARCH) APPROVED FLAME PROOD; C; TECHNICAL SPECIFICATION: TO GAS GROUP:IIA, IIB, T6 IS/IEC60N NAL -01 NO. EXTERNAL -02 NOS.; 12248-KOTA LPG PLANT AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S 12248-KOTA LPG PLANT AMERA; MANUFACTURER:N/A; M EET ATTACHED. 12248-KOTA LPG PLANT AMERA; MANUFACTURER:N/A; M EET ATTACHED.	Each Each ION OF CCTV VMS S Lump Sum EM AND ASSOCIATI Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALUI F ALUMINA ELECTR YPE OF EX-PROTECT CABLE ENTRY: AS Each I/SONY/AXIS/PELCO HEET ATTACHED. Each IODEL NUMBER:N/A Each	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T 10 GRESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO 4 MINUM ALLOY LM6; PART LICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IECC PER REQUIRE; HARDWARE 1 VVERINT/HONEYWELL; MO 2 ; ADDITIONAL INFORMATI	998733 LICENSE. THE TERMS AI 85258090 PIXELS HD; IM O FRAME RAT Y SHALL SUP ALID TEST CH 079-1:2007, ZO, 0529-1:2001; FB: STAINLESS 85258020 DDEL NUMBER 85258020 ION:IRF AND I	23AAACH1 118B1ZK 23AAACH1 118B1ZK ND CONDITIO 08AAACH1 118B1ZC IAGE TE:25/30 FPS; N 08AAACH1 118B1ZC PLY CIMFR(C ERTIFICATES. NE PAINT:EPOXY STEEL 08AAACH1 118B1ZC R:N/A; ADDITI 08AAACH1 118B1ZC MFZ LENS PIC	Yes NS Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes EKUP Yes
DESC DESC DESC COMENTI 125 DESC COMENTI 126 DESC CINSTIT CERT CLASS POWII 127 DESC INFOI 128 DESC INFOI 129 DESC DEVICED	RIPTION => SUPPLY AND INSTAIL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI TUTE OF MINING AND FUEL RESE IFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER Fixed camera motorized ZOOME IN TYPE:HD IP FIXED C. RMATION:2MP, WITH MOTORIZED INDOOR (Dome) 2MP RIPTION => TYPE:HD IP DOME C. CE; DETAILED SPECIFICATION SH Fixed camera Motorized ZOOM 4K	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYST MENTS. 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LEN: CONVIF COMPLIANT WITH POE 12248-KOTA LPG PLANT PROOF ENCLOSURE: PART MATEL ARCH) APPROVED FLAME PROOD; C; TECHNICAL SPECIFICATION: TO GAS GROUP:IIA, IIB, T6 IS/IEC60N NAL -01 NO. EXTERNAL -02 NOS.; 12248-KOTA LPG PLANT AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S 12248-KOTA LPG PLANT AMERA; MANUFACTURER:N/A; M EET ATTACHED. 12248-KOTA LPG PLANT AMERA; MANUFACTURER:N/A; M EET ATTACHED.	Each Each ION OF CCTV VMS S Lump Sum EM AND ASSOCIATI Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALUI F ALUMINA ELECTR YPE OF EX-PROTECT CABLE ENTRY: AS Each I/SONY/AXIS/PELCO HEET ATTACHED. Each IODEL NUMBER:N/A Each	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T 10 GRESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO 4 MINUM ALLOY LM6; PART LICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IECC PER REQUIRE; HARDWARE 1 VVERINT/HONEYWELL; MO 2 ; ADDITIONAL INFORMATI	998733 LICENSE. THE TERMS AI 85258090 PIXELS HD; IM O FRAME RAT Y SHALL SUP ALID TEST CH 079-1:2007, ZO, 0529-1:2001; FB: STAINLESS 85258020 DDEL NUMBER 85258020 ION:IRF AND I	23AAACH1 118B1ZK 23AAACH1 118B1ZK ND CONDITIO 08AAACH1 118B1ZC IAGE TE:25/30 FPS; N 08AAACH1 118B1ZC PLY CIMFR(C ERTIFICATES. NE PAINT:EPOXY STEEL 08AAACH1 118B1ZC R:N/A; ADDITI 08AAACH1 118B1ZC MFZ LENS PIC	Yes NS Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes EKUP Yes
DESC COMENTI CERT. CLAS. POWIL 129 DESC INFOIR 129 DESC INFOIR 129 DESC INFOIR 129 DESC INFOIR 130	RIPTION => SUPPLY AND INSTAIL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAME! TUTE OF MINING AND FUEL RESE IFICATION:ZONE 1 AND ZONE 2; PER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP RIPTION => TYPE:HD IP FIXED CAMATION:2MP, WITH MOTORIZED Indoor (Dome) 2MP RIPTION => TYPE:HD IP DOME CAMATION: TYPE:HD IP TYPE:HD IP DOME CAMATION: TYPE:HD IP TYPE:HD	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYST MENTS. 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS CONVIF COMPLIANT WITH POE 12248-KOTA LPG PLANT PROOF ENCLOSURE; PART MATEL EARCH) APPROVED FLAME PROOF EXTECHNICAL SPECIFICATION: TO GAS GROUP:IIA, IIB, T6 IS/IEC600 NAL -01 NO. EXTERNAL -02 NOS.; 12248-KOTA LPG PLANT AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S 12248-KOTA LPG PLANT AMERA; MANUFACTURER:N/A; M EET ATTACHED. 12248-KOTA LPG PLANT AME PROOF 4K CAMERA; MANUF LOWED 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS TREAM; FOCAL LENGTH OF LENS	Each	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T 10 G RESOLUTION:1920X1080 P S PROTECTION:1966; VIDEO 4 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:1966 IS/IECC PER REQUIRE; HARDWARE 1 VVERINT/HONEYWELL; MO 2 G RADDITIONAL INFORMATI 1 DEL NUMBER:N/A; IN ADDI 2 G RESOLUTION:1920X1080 P	998733 LICENSE. THE TERMS AI 85258090 PIXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CF 0799-1:2007, ZO 050529-1:2001; FG: STAINLESS 85258020 DDEL NUMBER 85258020 TION TO THIS 85258090 PIXELS HD; IM	23AAACH1 118B1ZK 23AAACH1 118B1ZK 23AAACH1 118B1ZK D CONDITIO 08AAACH1 118B1ZC IAGE TE:25/30 FPS; I 08AAACH1 118B1ZC PLY CIMFR(CERTIFICATES. NE PAINT:EPOXY STEEL 08AAACH1 118B1ZC R:N/A; ADDITI 08AAACH1 118B1ZC MFZ LENS PIC 08AAACH1 118B1ZC 08AAACH1 118B1ZC 08AAACH1 118B1ZC 08AAACH1 118B1ZC IAGE	Yes NS Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes IONS Yes
DESC COMENTI CERT. CLAS. POWIL 129 DESC INFOIR 129 DESC INFOIR 129 DESC INFOIR 129 DESC INFOIR 130	RIPTION => SUPPLY AND INSTAIL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAME! TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE FIXED TO SHALL BE AVAILABLE FIXED CAMERA SHALL BE FIXED TO SHALL BE AVAILABLE FIXED TO SHALL BE AVAILABLE FIXED CATION:ZONE I AND ZONE 2; PER COATING; EARTHLING:INTER FIXED CAMERA SHALL BE FIXED CAMERA SHALL BE FIXED TO SHALL BE AVAILABLE FIXED TO SHALL BE AVAILABLE FIXED CAMERA SHALL BE FIXED CAMERA SHALL BE FIXED CAMERA SHALL BE FIXED TO SHALL BE AVAILABLE FIXED CAMERA SHALL BE FIXED CAMERA SHALL FIXED CAMERA FIXED CAMERA SH	LATION OF 55 INCH LED TV AS P 12504-JABALPUR LPG PLANT WARE: SUPPLY AND INSTALLAT 12504-JABALPUR LPG PLANT COMMISSIONING OF CCTV SYST MENTS. 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS CONVIF COMPLIANT WITH POE 12248-KOTA LPG PLANT PROOF ENCLOSURE; PART MATEL EARCH) APPROVED FLAME PROOF EXTECHNICAL SPECIFICATION: TO GAS GROUP:IIA, IIB, T6 IS/IEC600 NAL -01 NO. EXTERNAL -02 NOS.; 12248-KOTA LPG PLANT AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S 12248-KOTA LPG PLANT AMERA; MANUFACTURER:N/A; M EET ATTACHED. 12248-KOTA LPG PLANT AME PROOF 4K CAMERA; MANUF LOWED 12248-KOTA LPG PLANT TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS TREAM; FOCAL LENGTH OF LENS	Each	ATTACHED. 34 SOFTWARE FOR CAMERAS 1 ED ACCESSORIES AS PER T 10 G RESOLUTION:1920X1080 P S PROTECTION:1966; VIDEO 4 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:1966 IS/IECC PER REQUIRE; HARDWARE 1 VVERINT/HONEYWELL; MO 2 G RADDITIONAL INFORMATI 1 DEL NUMBER:N/A; IN ADDI 2 G RESOLUTION:1920X1080 P	998733 LICENSE. THE TERMS AI 85258090 PIXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CF 0799-1:2007, ZO 050529-1:2001; FG: STAINLESS 85258020 DDEL NUMBER 85258020 TION TO THIS 85258090 PIXELS HD; IM	23AAACH1 118B1ZK 23AAACH1 118B1ZK 23AAACH1 118B1ZK D CONDITIO 08AAACH1 118B1ZC IAGE TE:25/30 FPS; I 08AAACH1 118B1ZC PLY CIMFR(CERTIFICATES. NE PAINT:EPOXY STEEL 08AAACH1 118B1ZC R:N/A; ADDITI 08AAACH1 118B1ZC MFZ LENS PIC 08AAACH1 118B1ZC 08AAACH1 118B1ZC 08AAACH1 118B1ZC 08AAACH1 118B1ZC IAGE	Yes NS Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes TIONS Yes

132	OPTICAL FIBER CABLE,SM,12 CORE	12248-KOTA LPG PLANT	Each	4800		08AAACH1 118B1ZC	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPME		I/A; AS PER
133	SPLY AND LAYG OF ARMOURED CAT6	12248-KOTA LPG PLANT	Meters	1000	995424	08AAACH1 118B1ZC	Yes
	RIPTION => SUPPLY AND LAYING					RING:GALVA	
134	OURED3. CONDUCTOR DIAMETER GI EARTHING WIRE 8SWG	12248-KOTA LPG PLANT	Meters	1000	0.85 MM6. APP	08AAACH1	Yes
DEGG	DIDTION - PROVIDING AND FIN	THE COUNCE DIA CA WINE ON GUE		LEOD LOOD EADTHING AG	DECLUBED	118B1ZC	
135	RIPTION => PROVIDING AND FIX SPLY&LAYG OF	12248-KOTA LPG PLANT	Each	1200	995424	08AAACH1	Yes
DEGG	UNARMOURED CAT6					118B1ZC	ED IN
CHAR	RIPTION => PROVIDING AND LA' GE)	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E)	QUIVALEN MAKES AS PER	INSTRUCTION	N OF ENGINE	EK-IN-
136	CONST OF CABLE TRENCH	12248-KOTA LPG PLANT	Meters	2000	995433	08AAACH1 118B1ZC	Yes
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G.		D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO	N, 1800 MM W	VIDE, 1000
137	NETWORK SWITCH,MANAGED,8 PORT	12248-KOTA LPG PLANT	Each	6	84733091	08AAACH1 118B1ZC	Yes
DESC	RIPTION => NETWORK SWITCH;	NUMBER OF PORTS:8; APPLICATI	ON:OUTDOOR				
138	NETWORK SWITCH, MANAGED 12 PORT	12248-KOTA LPG PLANT	Set	4		08AAACH1 118B1ZC	Yes
	RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; I					ION MODE:N/	
139	JUNCTION BOX	12248-KOTA LPG PLANT	Each	8	995461	08AAACH1 118B1ZC	Yes
DESC	RIPTION => SUPPLY AND INSTAI	LLATION OF WEATHER PROOF JU	NCTION BOX AS PE	R TENDER DOCUMENT.		11102120	ļ.
140	FLP JUNCTION BOX	12248-KOTA LPG PLANT	Each	4	995461	08AAACH1 118B1ZC	Yes
WITH STEEL AMEN CLAM EARTI TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT L HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENS! (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE DD MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CH	2 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURE ED AS PER IS - FERMINALS F CTION BOX SH OF CABLES. C F (FOR 18 P 1	E CLASS T3, ST 2148 WITH LA FOR SUITABLE HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL . SHALL E), 4 NO 3/4
141	GI Pole 8 MT	12248-KOTA LPG PLANT	Each	19		08AAACH1 118B1ZC	Yes
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUII	PMENT MODE	EL:N/A; AS
142	HARD DISK DRIVE per TB cost	12248-KOTA LPG PLANT	Each	50		08AAACH1 118B1ZC	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	TION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
143	55 inch LED TV	12248-KOTA LPG PLANT	Each	1	998734	08AAACH1	Yes
DESC	 RIPTION => SUPPLY AND INSTAL	I ATION OF 55 INCH LED TV AS D	ED SDECIFICATION	ATTACHED		118B1ZC	
144	VIDEO MANAGEMENT	12248-KOTA LPG PLANT	Each	30	998733	08AAACH1	Yes
	SOFTWARE					118B1ZC	
DESC 145	RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING	FWARE: SUPPLY AND INSTALLAT 12248-KOTA LPG PLANT	Lump Sum	OFTWARE FOR CAMERAS	LICENSE.	08AAACH1	Yes
145	CCTV SYS	12240-NOTA LI OT LANT	Lump Sum	1		118B1ZC	163
	RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN		EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
146	CAMC FOR CCTV SYSTEM PER YEAR	12241-AJMER LPG PLANT	Year	5		08AAACH1 118B1ZC	Yes
DESC	RIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOD	FOR SUPPLII	ED SYSTEM.	
147	CAMC FOR CCTV SYSTEM PER YEAR	12435-GANDHINAGAR LPG	Year	5		24AAACH1 118B1ZI	Yes
DESC	RIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	1	FOR SUPPLII	ED SYSTEM.	
148	CAMC FOR CCTV SYSTEM PER YEAR	12455-HAZIRA-LPG	Year	5		24AAACH1 118B1ZI	Yes
	RIPTION => CAMC FOR SURVEIL				FOR SUPPLII		
149	CAMC FOR CCTV SYSTEM PER YEAR	12507-INDORE LPG PLANT	Year	5		23AAACH1 118B1ZK	Yes
	RIPTION => CAMC FOR SURVEIL				FOR SUPPLII		l.,
150	CAMC FOR CCTV SYSTEM PER YEAR	12520-BHOPAL-LPG	Year	5		23AAACH1 118B1ZK	Yes
	RIPTION => CAMC FOR SURVEIL		1	1	FOR SUPPLII		V
151	CAMC FOR CCTV SYSTEM PER YEAR	12504-JABALPUR LPG PLANT	Year	5		23AAACH1 118B1ZK	Yes
DESC 152	RIPTION => CAMC FOR SURVEIL CAMC FOR CCTV SYSTEM PER YEAR	LANCE SYSTEM: COMPREHENSIV 12248-KOTA LPG PLANT	YE AMC AFTER EXPI	RY OF WARRANTY PERIOD 5	FOR SUPPLII	08AAACH1 118B1ZC	Yes
DESC	RIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	<u>'E AMC</u> AFTER EXPI	RY OF WARRANTY PERIOL	FOR SUPPLII		
		Schedule 3 SOUTH ZONE				Ma	anadatory: No
1	Fixed Camera FL12	12779-MYSORE LPG	Each	11	85258090	29AAACH1 118B1Z8	Yes
	<u> </u>	I .	1		L	1100120	

COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
2	FLP Enclosur Fixed Camera F12		Each	3		29AAACH1 118B1Z8	Yes
CERTI CLASS	RIPTION => PART NAME:FLAME FUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER	EARCH) APPROVED FLAME PROOF E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	LICAL ENCLOSURE WITH V CION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CF 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
3	Fixed camera motorized zoom2MP	12779-MYSORE LPG	Each	2	85258020	29AAACH1 118B1Z8	Yes
DESC	RIPTION => TYPE:HD IP FIXED CARMATION:2MP,WITH MOTORIZED	AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S	I/SONY/AXIS/PELCO HEET ATTACHED.	/VERINT/HONEYWELL; MC	DDEL NUMBE	R:N/A; ADDIT	IONAL
4	Indoor (Dome) 2MP	12779-MYSORE LPG	Each	3	85258020	29AAACH1 118B1Z8	Yes
	CRIPTION => TYPE:HD IP DOME CA		IODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ION:IRF AND	MFZ LENS PIC	CKUP
5	Fixed camera Motorized zoom 4K	12779-MYSORE LPG	Each	2		29AAACH1 118B1Z8	Yes
	RIPTION => TYPE:FIXED NON FLATIONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TIONS
6	Fixed Camera FL50	12779-MYSORE LPG	Each	5	85258090	29AAACH1 118B1Z8	Yes
COMP	RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS	AMERA; RECORDING S:12-50 MM; INGRES	G RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEC	PIXELS HD; IM O FRAME RAT	IAGE	NIGHT
7	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12779-MYSORE LPG	Meters	3000		29AAACH1 118B1Z8	Yes
	RIPTION => SUPPLY OF THE FO S 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS
8	OPTICAL FIBER CABLE,SM,12 CORE	12779-MYSORE LPG	Each	2500		29AAACH1 118B1Z8	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	V/A; AS PER
9	SPLY AND LAYG OF ARMOURED CAT6	12779-MYSORE LPG	Meters	2000	995424	29AAACH1 118B1Z8	Yes
	RIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER						
10	GI EARTHING WIRE 8SWG	12779-MYSORE LPG	Meters	500		29AAACH1 118B1Z8	Yes
DESC	RIPTION => PROVIDING AND FIX					1	
11	SPLY&LAYG OF UNARMOURED CAT6	12779-MYSORE LPG	Each	1500	995424	29AAACH1 118B1Z8	Yes
DESC CHAR	CRIPTION => PROVIDING AND LAYGE)	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO.	N OF ENGINE	ER-IN-
12	CONST OF CABLE TRENCH	12779-MYSORE LPG	Meters	3000	995433	29AAACH1 118B1Z8	Yes
	RIPTION => UNDERGROUND-CAR EPTH, CABLE ROUTE MARKER-G		D FILLING, BRICK L	AYING, BACKFILLING ANI	O COMPACTIO	ON, 1800 MM V	VIDE, 1000
13	NETWORK SWITCH,MANAGED,8 PORT	12779-MYSORE LPG	Each	12	84733091	29AAACH1 118B1Z8	Yes
DESC	RIPTION => NETWORK SWITCH;	NUMBER OF PORTS:8; APPLICATI	ON:OUTDOOR				
14	NETWORK SWITCH,MANAGED 12 PORT	12779-MYSORE LPG	Set	3		29AAACH1 118B1Z8	Yes
	RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; NOWFD						
15	JUNCTION BOX	12779-MYSORE LPG	Each	10	995461	29AAACH1 118B1Z8	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LLATION OF WEATHER PROOF JU			1	1	
16	FLP JUNCTION BOX	12779-MYSORE LPG	Each	7	995461	29AAACH1 118B1Z8	Yes
WITH STEEL AMEN CLAM EART TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT LHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENS! (FOR 6, P. 1 SQ.MM AND 4 PAIR 1 S	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF	P 66 CLASS PROTECTION, TO DII B, CCOE CMRI CERTIFII LLL INCLUDE NECESSARY A ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURI ED AS PER IS TERMINALS I CTION BOX SI OF CABLES. O T (FOR 18 P 1	E CLASS T3, S -2148 WITH LA FOR SUITABL HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
17	GI Pole 8 MT	12779-MYSORE LPG	Each	24		29AAACH1 118B1Z8	Yes
	CRIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	EQUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS
18	HARD DISK DRIVE per TB cost	12779-MYSORE LPG	Each	60		29AAACH1 118B1Z8	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	TION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
19	55 inch LED TV	12779-MYSORE LPG	Each	2	998734	29AAACH1 118B1Z8	Yes
	RIPTION => SUPPLY AND INSTAL						
20	VIDEO MANAGEMENT SOFTWARE	12779-MYSORE LPG	Each	38	998733	29AAACH1 118B1Z8	Yes
DESC 21	RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS	TWARE: SUPPLY AND INSTALLAT 12779-MYSORE LPG	ION OF CCTV VMS S Lump Sum	SOFTWARE FOR CAMERAS	LICENSE.	29AAACH1 118B1Z8	Yes

	DESCRIPTION => INSTALLATION AND COMMISSIONING OF CCTV SYSTEM AND ASSOCIATED ACCESSORIES AS PER THE TERMS AND CONDITIONS MENTIONED IN THE TENDER ATTACHMENTS.									
22	Fixed Camera FL12	12777-MANGLORE LPG	Each	6	85258090	29AAACH1 118B1Z8	Yes			
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT			
23	FLP Enclosur Fixed Camera F12	12777-MANGLORE LPG	Each	3		29AAACH1 118B1Z8	Yes			
INSTI CERTI CLASS	RIPTION => PART NAME:FLAMEI FUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER	ARCH) APPROVED FLAME PROOF TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO			
24	Fixed camera motorized zoom2MP	12777-MANGLORE LPG	Each	1	85258020	29AAACH1 118B1Z8	Yes			
	RIPTION => TYPE:HD IP FIXED CARMATION:2MP,WITH MOTORIZED			/VERINT/HONEYWELL; MC	DDEL NUMBE	R:N/A; ADDIT	IONAL			
25	Indoor (Dome) 2MP	12777-MANGLORE LPG	Each	2	85258020	29AAACH1 118B1Z8	Yes			
	RIPTION => TYPE:HD IP DOME CACE; DETAILED SPECIFICATION SH		IODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND	MFZ LENS PIC	CKUP			
26	Fixed camera Motorized zoom 4K	12777-MANGLORE LPG	Each	2		29AAACH1 118B1Z8	Yes			
	RIPTION => TYPE:FIXED NON FL. TONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TONS			
27	Fixed Camera FL50	12777-MANGLORE LPG	Each	2	85258090	29AAACH1 118B1Z8	Yes			
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT			
28	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12777-MANGLORE LPG	Meters	2000		29AAACH1 118B1Z8	Yes			
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS			
29	OPTICAL FIBER CABLE,SM,12 CORE	12777-MANGLORE LPG	Each	1500		29AAACH1 118B1Z8	Yes			
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	J/A; AS PER			
30	SPLY AND LAYG OF ARMOURED CAT6	12777-MANGLORE LPG	Meters	1500	995424	29AAACH1 118B1Z8	Yes			
	RIPTION => SUPPLY AND LAYING URED3. CONDUCTOR DIAMETER									
31	GI EARTHING WIRE 8SWG	12777-MANGLORE LPG	Meters	1000		29AAACH1 118B1Z8	Yes			
	RIPTION => PROVIDING AND FIX					2004 4 4 6144	lv			
32	UNARMOURED CAT6	12777-MANGLORE LPG	Each	750	995424	29AAACH1 118B1Z8	Yes			
CHAR			1	`	1					
33	CONST OF CABLE TRENCH	12777-MANGLORE LPG	Meters	750	995433	118B1Z8	Yes			
MM D	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G.	ALVANIZED.	, , , , , , , , , , , , , , , , , , ,	AYING, BACKFILLING AND	COMPACTIO	ON, 1800 MM V	VIDE, 1000			
34	NETWORK SWITCH,MANAGED,8 PORT	12777-MANGLORE LPG	Each	4	84733091	29AAACH1 118B1Z8	Yes			
DESC 35	RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED	NUMBER OF PORTS:8; APPLICATI 12777-MANGLORE LPG	ON:OUTDOOR Set	4		29AAACH1	Yes			
	12 PORT RIPTION => SWITCH, NETWORK;	PORT OHANTITY:12: DATA TRAN		TA LINK PROTOCOL:N/A: C	OMMUNICAT	118B1Z8	/A·			
	AGE:N/A; MANUFACTURER:N/A; I									
36	JUNCTION BOX	12777-MANGLORE LPG	Each	10	995461	29AAACH1 118B1Z8	Yes			
DESC 37	RIPTION => SUPPLY AND INSTALE FLP JUNCTION BOX	LATION OF WEATHER PROOF JU 12777-MANGLORE LPG	NCTION BOX AS PER	R TENDER DOCUMENT. 8	995461	29AAACH1	Yes			
						118B1Z8				
WITH STEEL AMEN CLAM EART TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOD HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENS (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE DD MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	G CONSTRUCTION, IF FOR GROUP II A ANI JUNCTION BOX SHA L BE PROVIDED FOR LED SHORTING LINK OM ENGINEER-IN-CE	P 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE LLL INCLUDE NECESSARY A ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURI ED AS PER IS - TERMINALS I CTION BOX SI OF CABLES. O I (FOR 18 P 1	E CLASS T3, S' -2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4			
38	GI Pole 8 MT	12777-MANGLORE LPG	Each	8		29AAACH1 118B1Z8	Yes			
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	EQUIPMENT NAME:CCTV S	YSTEM; EQUI		EL:N/A; AS			
39	HARD DISK DRIVE per TB cost	12777-MANGLORE LPG	Each	20		29AAACH1 118B1Z8	Yes			
	I RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F		OF 90 DAYS			
40	55 inch LED TV	12777-MANGLORE LPG	Each	2	998734	29AAACH1 118B1Z8	Yes			
DESC	 RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	PER SPECIFICATION	ATTACHED	I.	11100120	1			

41	VIDEO MANAGEMENT SOFTWARE	12777-MANGLORE LPG	Each	34	998733	29AAACH1 118B1Z8	Yes
DESC	RIPTION => MANAGEMENT SOFT	WARE: SUPPLY AND INSTALLAT	ION OF CCTV VMS S	OFTWARE FOR CAMERAS	LICENSE.		
42	INSTLN COMMNG TESTING CCTV SYS	12777-MANGLORE LPG	Lump Sum	1		29AAACH1 118B1Z8	Yes
	RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN		EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
43	Fixed Camera FL12	12892-HUBLI LPG	Each	11	85258090	29AAACH1 118B1Z8	Yes
COMF	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
44	FLP Enclosur Fixed Camera F12	12892-HUBLI LPG	Each	5		29AAACH1 118B1Z8	Yes
INSTI CERT CLAS	RIPTION => PART NAME:FLAMEI FUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER	ARCH) APPROVED FLAME PROOI E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V. TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; P	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
45	Fixed camera motorized zoom2MP	12892-HUBLI LPG	Each	2	85258020	29AAACH1 118B1Z8	Yes
	RIPTION => TYPE:HD IP FIXED CARMATION:2MP,WITH MOTORIZED			/VERINT/HONEYWELL; MC	DEL NUMBEI	R:N/A; ADDITI	IONAL
46	Indoor (Dome) 2MP	12892-HUBLI LPG	Each	3	85258020	29AAACH1 118B1Z8	Yes
	RIPTION => TYPE:HD IP DOME CA		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	MFZ LENS PIC	KUP
47	Fixed camera Motorized zoom 4K		Each	4		29AAACH1 118B1Z8	Yes
	I RIPTION => TYPE:FIXED NON FL. TONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS		IONS
48	Fixed Camera FL50	12892-HUBLI LPG	Each	6	85258090	29AAACH1 118B1Z8	Yes
COMF	RIPTION => IP/NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS	MERA; RECORDING S:12-50 MM; INGRESS	RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO	IXELS HD; IM FRAME RAT	AGE E:25/ 30 FPS; N	IIGHT
49	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12892-HUBLI LPG	Meters	2200		29AAACH1 118B1Z8	Yes
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS
50	OPTICAL FIBER CABLE,SM,12 CORE	12892-HUBLI LPG	Each	1700		29AAACH1 118B1Z8	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPME	ENT MODEL:N	I/A; AS PER
51	SPLY AND LAYG OF ARMOURED CAT6	12892-HUBLI LPG	Meters	1000	995424	29AAACH1 118B1Z8	Yes
	RIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER						
52	GI EARTHING WIRE 8SWG	12892-HUBLI LPG	Meters	600	7.03 1411410. 741 1		Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR	FACE OR IN RECESS	FOR LOOP EARTHING AS	REQUIRED.	1	
53	SPLY&LAYG OF UNARMOURED CAT6	12892-HUBLI LPG	Each	1800	995424	29AAACH1 118B1Z8	Yes
DESC CHAR	RIPTION => PROVIDING AND LA' GE)	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINEI	ER-IN-
54	CONST OF CABLE TRENCH	12892-HUBLI LPG	Meters	2000	995433	29AAACH1 118B1Z8	Yes
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G		D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO	N, 1800 MM W	/IDE, 1000
55	NETWORK SWITCH,MANAGED,8 PORT	12892-HUBLI LPG	Each	10	84733091	29AAACH1 118B1Z8	Yes
	RIPTION => NETWORK SWITCH;	· · · · · · · · · · · · · · · · · · ·				000000014	V
56	NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, NETWORK;	12892-HUBLI LPG	Set DATE:N/A: DA	2	COMMINICATI	29AAACH1 118B1Z8	Yes
VOLT	RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; I DWED						
57	JUNCTION BOX	12892-HUBLI LPG	Each	10	995461	29AAACH1 118B1Z8	Yes
	RIPTION => SUPPLY AND INSTAI				005101	00446:::	
58	FLP JUNCTION BOX	12892-HUBLI LPG	Each	7	995461	29AAACH1 118B1Z8	Yes
WITH STEEL AMEN CLAM EART TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIRECTORY TYPE TERMINALS OF APPROVE HERMINAL JUNCTION BOX SHATTLE APPROVAL OF THE DIMENS. (FOR 6, P. 1 SQ.MM AND 4 PAIR 1 SQ. POLE 8 MT	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE D MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CH	2 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURE ED AS PER IS - TERMINALS F CTION BOX SH OF CABLES. C I (FOR 18 P 1	E CLASS T3, ST 2148 WITH LA FOR SUITABLE HALL HAVE E CONTRACTOR SQ.MM CABLE RMINALS (TB 29AAACH1	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
	RIPTION => PART NAME:CAMER.	l A POLE; PART NUMBER:N/A; MAN	L NUFACTURER:N/A; E	L QUIPMENT NAME:CCTV SY	I YSTEM; EQUII	118B1Z8 PMENT MODE	L:N/A; AS
PER T	HARD DISK DRIVE per TB cost	12892-HUBLI LPG	Each	30		29AAACH1	Yes

	RIPTION => SUPPLY, INSTALLATE R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	R STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
61	55 inch LED TV	12892-HUBLI LPG	Each	2	998734	29AAACH1 118B1Z8	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION A	ATTACHED.			
62	VIDEO MANAGEMENT SOFTWARE	12892-HUBLI LPG	Each	43	998733	29AAACH1 118B1Z8	Yes
		WARE: SUPPLY AND INSTALLAT			LICENSE.	004445	
63	INSTLN COMMNG TESTING CCTV SYS	12892-HUBLI LPG	Lump Sum	1 ACCESSODIES AS DED T	HE TEDMO + 2	29AAACH1 118B1Z8	Yes
	RIPTION => INSTALLATION AND IONED IN THE TENDER ATTACHN	COMMISSIONING OF CCTV SYST MENTS.	EM AND ASSOCIATE	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
64	Fixed Camera FL12	12844-GUMMIDIPOONDI LPG PLANT	Each	13	85258090	33AAACH1 118B1ZJ	Yes
COMP		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS ONVIF COMPLIANT WITH POE					NIGHT
65	FLP Enclosur Fixed Camera F12	12844-GUMMIDIPOONDI LPG PLANT	Each	5		33AAACH1 118B1ZJ	Yes
		PROOF ENCLOSURE; PART MATER ARCH) APPROVED FLAME PROOF					
CERTI CLASS	FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC6007 NAL -01 NO. EXTERNAL -02 NOS.;	PE OF EX-PROTECT 79-0:2004, INGRESS II	ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	079-1:2007, ZO 0529-1:2001; P	NE PAINT:EPOXY	
66	Fixed camera motorized zoom2MP	12844-GUMMIDIPOONDI LPG PLANT	Each	3	85258020	33AAACH1 118B1ZJ	Yes
DESC: INFOR	RIPTION => TYPE:HD IP FIXED CA MATION:2MP,WITH MOTORIZED	AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION SI	I/SONY/AXIS/PELCO HEET ATTACHED.	/VERINT/HONEYWELL; MO	DEL NUMBEI	R:N/A; ADDITI	ONAL
67	Indoor (Dome) 2MP	12844-GUMMIDIPOONDI LPG PLANT	Each	2	85258020	33AAACH1 118B1ZJ	Yes
	RIPTION => TYPE:HD IP DOME CA	AMERA; MANUFACTURER:N/A; M EET ATTACHED.	ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	MFZ LENS PIC	KUP
68	Fixed camera Motorized zoom 4K	12844-GUMMIDIPOONDI LPG PLANT	Each	1		33AAACH1 118B1ZJ	Yes
	RIPTION => TYPE:FIXED NON FLATIONED IN TENDER MUST BE FOLI	AME PROOF 4K CAMERA; MANUF LOWED	ACTURER:N/A; MOD	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	IONS
69	Fixed Camera FL50	12844-GUMMIDIPOONDI LPG PLANT	Each	18	85258090	33AAACH1 118B1ZJ	Yes
COMP		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS ONVIF COMPLIANT WITH POE.					IGHT
70	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12844-GUMMIDIPOONDI LPG PLANT	Meters	800		33AAACH1 118B1ZJ	Yes
		LLOWING 1100 VOLTS COPPER			THED STEEL	ARMOURED	CABLES AS
71	OPTICAL FIBER CABLE,SM,12 CORE	FICATIONS OF THIS TENDER.SUPF 12844-GUMMIDIPOONDI LPG PLANT	Each	800		33AAACH1 118B1ZJ	Yes
		BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	I IPMENT NAME:CCTV SYST	EM; EQUIPME		//A; AS PER
72	SPLY AND LAYG OF ARMOURED CAT6	12844-GUMMIDIPOONDI LPG PLANT	Meters	1000	995424	33AAACH1 118B1ZJ	Yes
		G OF CAT6 ARMOURED NETWORE :23 AWG4. TEMPERATURE RATIN					
73	GI EARTHING WIRE 8SWG	12844-GUMMIDIPOONDI LPG PLANT	Meters	900		33AAACH1 118B1ZJ	Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR	FACE OR IN RECESS	FOR LOOP EARTHING AS	REQUIRED.	1	
74	SPLY&LAYG OF UNARMOURED CAT6	12844-GUMMIDIPOONDI LPG PLANT	Each	500	995424	33AAACH1 118B1ZJ	Yes
DESC: CHAR		YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/EC	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
75	CONST OF CABLE TRENCH	12844-GUMMIDIPOONDI LPG PLANT	Meters	750	995433	33AAACH1 118B1ZJ	Yes
	RIPTION => UNDERGROUND-CAL EPTH, CABLE ROUTE MARKER-GA	BLE TRENCH: EXCAVATION, SAN ALVANIZED.	D FILLING, BRICK LA	AYING, BACKFILLING AND	COMPACTIO	N, 1800 MM W	/IDE, 1000
76	NETWORK SWITCH,MANAGED,8 PORT	12844-GUMMIDIPOONDI LPG PLANT	Each	6	84733091	33AAACH1 118B1ZJ	Yes
DESC	RIPTION => NETWORK SWITCH;	NUMBER OF PORTS:8; APPLICATION	ON:OUTDOOR				
77	NETWORK SWITCH,MANAGED 12 PORT	12844-GUMMIDIPOONDI LPG PLANT	Set	4		33AAACH1 118B1ZJ	Yes
	AGE:N/A; MANUFACTURER:N/A; N	PORT,QUANTITY:12; DATA TRANS MODEL NUMBER:N/A; MANAGED,					
78	JUNCTION BOX	12844-GUMMIDIPOONDI LPG PLANT	Each	3	995461	33AAACH1 118B1ZJ	Yes
		LATION OF WEATHER PROOF JUL			005454	004445	
79	FLP JUNCTION BOX	12844-GUMMIDIPOONDI LPG PLANT	Each	WAY ELAME DROOF AND	995461	33AAACH1 118B1ZJ	Yes
WITH STEEL AMEN CLAM EARTI TAKE	TERMINALS WITH TOP AND BOT, HARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHATHE APPROVAL OF THE DIMENS!	ND COMMISSIONING OF 12 WAY F TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE F TION OF ENGINEER-IN-CHARGE. ID MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRC 6Q.MM CABLE), 6 NOS 1/2 INCH (F	CONSTRUCTION, IP OR GROUP II A AND IUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINK: OM ENGINEER-IN-CH	66 CLASS PROTECTION, THE BLUE BLUE BLUE BLUE BLUE BLUE BLUE BLU	EMPERATURE ED AS PER IS - FERMINALS F TION BOX SF OF CABLES. C F (FOR 18 P 1	E CLASS T3, ST 2148 WITH LA FOR SUITABLE HALL HAVE EX CONTRACTOR SQ.MM CABLE	TAINLESS TEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
80	GI Pole 8 MT	12844-GUMMIDIPOONDI LPG PLANT	Each	12		33AAACH1 118B1ZJ	Yes

	RIPTION => PART NAME:CAMER ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	EQUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS
81	HARD DISK DRIVE per TB cost	12844-GUMMIDIPOONDI LPG PLANT	Each	30		33AAACH1 118B1ZJ	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
82	55 inch LED TV	12844-GUMMIDIPOONDI LPG PLANT	Each	2	998734	33AAACH1 118B1ZJ	Yes
DESC	RIPTION => SUPPLY AND INSTAI	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION	ATTACHED.			
83	VIDEO MANAGEMENT SOFTWARE	12844-GUMMIDIPOONDI LPG PLANT	Each	62	998733	33AAACH1 118B1ZJ	Yes
		TWARE: SUPPLY AND INSTALLAT			LICENSE.	T	I
84	INSTLN COMMNG TESTING CCTV SYS	12844-GUMMIDIPOONDI LPG PLANT	Lump Sum	1		33AAACH1 118B1ZJ	Yes
	RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN	COMMISSIONING OF CCTV SYST MENTS.	EM AND ASSOCIAT	ED ACCESSORIES AS PER T	HE TERMS A	ND CONDITIO	NS
85	Fixed Camera FL12	12949-PALGHAT LPG PLANT	Each	14	85258090	32AAACH1 118B1ZL	Yes
COMP		TYPE:DAY AND NIGHT FIXED CATERIAM; FOCAL LENGTH OF LENGE ONVIF COMPLIANT WITH POE					NIGHT
86	FLP Enclosur Fixed Camera F12	12949-PALGHAT LPG PLANT	Each	6		32AAACH1 118B1ZL	Yes
INSTITE CERTICLES	TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	PROOF ENCLOSURE; PART MATE EARCH) APPROVED FLAME PROOI ;; TECHNICAL SPECIFICATION: TO GAS GROUP:IIA, IIB, T6 IS/IEC600 NAL -01 NO. EXTERNAL -02 NOS.;	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	LICAL ENCLOSURE WITH V CION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
87	Fixed camera motorized zoom2MP	12949-PALGHAT LPG PLANT	Each	2	85258020	32AAACH1 118B1ZL	Yes
		AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S		/VERINT/HONEYWELL; MC	DDEL NUMBE	R:N/A; ADDIT	IONAL
88	Indoor (Dome) 2MP	12949-PALGHAT LPG PLANT	Each	2	85258020	32AAACH1 118B1ZL	Yes
	RIPTION => TYPE:HD IP DOME C. CE; DETAILED SPECIFICATION SH	AMERA; MANUFACTURER:N/A; M	IODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND	MFZ LENS PIC	CKUP
89	Fixed camera Motorized zoom 4K		Each	1		32AAACH1 118B1ZL	Yes
	RIPTION => TYPE:FIXED NON FL TONED IN TENDER MUST BE FOLI	L AME PROOF 4K CAMERA; MANUF LOWED	FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS		TIONS
90	Fixed Camera FL50	12949-PALGHAT LPG PLANT	Each	4	85258090	32AAACH1 118B1ZL	Yes
COMP		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENGT				IAGE	NIGHT
91	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12949-PALGHAT LPG PLANT	Meters	600		32AAACH1 118B1ZL	Yes
		LLOWING 1100 VOLTS COPPER FICATIONS OF THIS TENDER.SUPI			THED STEEL	ARMOURED	CABLES AS
92	OPTICAL FIBER CABLE,SM,12 CORE	12949-PALGHAT LPG PLANT	Each	400		32AAACH1 118B1ZL	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	I/A; AS PER
93	SPLY AND LAYG OF ARMOURED CAT6	12949-PALGHAT LPG PLANT	Meters	1500	995424	32AAACH1 118B1ZL	Yes
		G OF CAT6 ARMOURED NETWOR					
94	GI EARTHING WIRE 8SWG	:23 AWG4. TEMPERATURE RATIN 12949-PALGHAT LPG PLANT	Meters	500).85 MM6. APF	32AAACH1	Yes
					DECLURED	118B1ZL	103
95	SPLY&LAYG OF	ING 8 SWG DIA G.I. WIRE ON SUR 12949-PALGHAT LPG PLANT	Each	800	995424	32AAACH1	Yes
	UNARMOURED CAT6	YING AMP CAT 6 CABLE FOR LAN				118B1ZL	
CHAR		12949-PALGHAT LPG PLANT	Meters	1000	995433	32AAACH1	Yes
		BLE TRENCH: EXCAVATION, SAN				118B1ZL	
MM D	EPTH, CABLE ROUTE MARKER-G	ALVANIZED.	, , , , , , , , , , , , , , , , , , ,	, T	T COMPACTION	<u> </u>	· · · · · · · · · · · · · · · · · · ·
97	NETWORK SWITCH,MANAGED 12 PORT	12949-PALGHAT LPG PLANT	Set	3		32AAACH1 118B1ZL	Yes
VOLT.		PORT,QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED					
98	JUNCTION BOX	12949-PALGHAT LPG PLANT	Each	1	995461	32AAACH1 118B1ZL	Yes
		LATION OF WEATHER PROOF JU					
99	FLP JUNCTION BOX	12949-PALGHAT LPG PLANT	Each	3	995461	32AAACH1 118B1ZL	Yes
WITH STEEL AMEN CLAM EARTI TAKE	TERMINALS WITH TOP AND BOT LHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC PROVED THE ERMINALS OF APPROVED HERMINAL JUNCTION BOX SHATTE APPROVAL OF THE DIMENS	ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I CTION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRE SQ.MM CABLE), 6 NOS 1/2 INCH (F	CONSTRUCTION, IFFOR GROUP II A ANI JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CE	P 66 CLASS PROTECTION, TO DII B, CCOE CMRI CERTIFII ALL INCLUDE NECESSARY A ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURI ED AS PER IS - TERMINALS I CTION BOX SI OF CABLES. O I (FOR 18 P 1	E CLASS T3, S' -2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4

100	GI Pole 8 MT	12949-PALGHAT LPG PLANT	Each	17		32AAACH1 118B1ZL	Yes
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUII	PMENT MODE	EL:N/A; AS
101	HARD DISK DRIVE per TB cost	12949-PALGHAT LPG PLANT	Each	40		32AAACH1 118B1ZL	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	TION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
102	55 inch LED TV	12949-PALGHAT LPG PLANT	Each	2	998734	32AAACH1 118B1ZL	Yes
		LLATION OF 55 INCH LED TV AS P					1
103	VIDEO MANAGEMENT SOFTWARE	12949-PALGHAT LPG PLANT	Each	41	998733	32AAACH1 118B1ZL	Yes
104	INSTLN COMMNG TESTING	WARE: SUPPLY AND INSTALLAT 12949-PALGHAT LPG PLANT	Lump Sum	1	LICENSE.	32AAACH1	Yes
		COMMISSIONING OF CCTV SYST	EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AN	118B1ZL ND CONDITIO	NS
MENT 105	IONED IN THE TENDER ATTACHN Fixed Camera FL12	12959-KOCHI LPG	Each	14	85258090	32AAACH1	Yes
COMP	RESSION:H.264/MPEG-4, TRIPLE S	L TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS					NIGHT
VISION 106	N:REQUIRED; CAMERA SHALL BE PTZ CAMERA	12959-KOCHI LPG	Each	1		32AAACH1	Yes
		l MEPROOF CAMERA; MANUFACTU	L RER:N/A; MODEL N	L UMBER:N/A; IN ADDITION	L ΓΟ THIS, SPEC	118B1ZL DIFICATIONS	MENTIONED
107	FLP Enclosur Fixed Camera F12	12959-KOCHI LPG	Each	3		32AAACH1 118B1ZL	Yes
INSTIT CERTI	TUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE	I PROOF ENCLOSURE; PART MATEI EARCH) APPROVED FLAME PROO! E; TECHNICAL SPECIFICATION: TY	F ALUMINA ELECTR YPE OF EX-PROTECT	ICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC600	ALID TEST CE 079-1:2007, ZO	PLY CIMFR(C ERTIFICATES. NE	ALSO PESO
		GAS GROUP:IIA, IIB, T6 IS/IEC600 NAL -01 NO. EXTERNAL -02 NOS.; 12959-KOCHI LPG					POLYESTER
	zoom2MP					118B1ZL	
INFOR	MATION:2MP,WITH MOTORIZED	AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S	HEET ATTACHED.	, T		, , , , , , , , , , , , , , , , , , ,	1
109	Indoor (Dome) 2MP	12959-KOCHI LPG	Each	3	85258020	32AAACH1 118B1ZL	Yes
	RIPTION => TYPE:HD IP DOME CA E; DETAILED SPECIFICATION SH	AMERA; MANUFACTURER:N/A; M EET ATTACHED.	ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	MFZ LENS PIC	CKUP
110	Fixed camera Motorized zoom 4K	12959-KOCHI LPG	Each	2		32AAACH1 118B1ZL	Yes
	RIPTION => TYPE:FIXED NON FL IONED IN TENDER MUST BE FOLI	AME PROOF 4K CAMERA; MANUF LOWED	FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TIONS
111	Fixed Camera FL50	12959-KOCHI LPG	Each	6	85258090	32AAACH1 118B1ZL	Yes
COMP		TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENG ONVIF COMPLIANT WITH POE.					NIGHT
112	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12959-KOCHI LPG	Meters	1200		32AAACH1 118B1ZL	Yes
		LLOWING 1100 VOLTS COPPER FICATIONS OF THIS TENDER.SUP			THED STEEL	ARMOURED	CABLES AS
113	OPTICAL FIBER CABLE,SM,12 CORE	12959-KOCHI LPG	Each	800		32AAACH1 118B1ZL	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPME	ENT MODEL:N	V/A; AS PER
114	SPLY AND LAYG OF ARMOURED CAT6	12959-KOCHI LPG	Meters	2450	995424	32AAACH1 118B1ZL	Yes
		G OF CAT6 ARMOURED NETWOR :23 AWG4. TEMPERATURE RATIN					
115	GI EARTHING WIRE 8SWG	12959-KOCHI LPG	Meters	500		32AAACH1 118B1ZL	Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR	FACE OR IN RECESS	FOR LOOP EARTHING AS	REQUIRED.		
116	SPLY&LAYG OF UNARMOURED CAT6	12959-KOCHI LPG	Each	1000	995424	32AAACH1 118B1ZL	Yes
DESC: CHAR		YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
117	CONST OF CABLE TRENCH	12959-KOCHI LPG	Meters	1000	995433	32AAACH1 118B1ZL	Yes
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G	BLE TRENCH: EXCAVATION, SAN ALVANIZED.	D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO	N, 1800 MM V	VIDE, 1000
118	NETWORK SWITCH,MANAGED,8 PORT	12959-KOCHI LPG	Each	5	84733091	32AAACH1 118B1ZL	Yes
	·	NUMBER OF PORTS:8; APPLICATI		Ι.		I	1
119	NETWORK SWITCH,MANAGED 12 PORT	12959-KOCHI LPG	Set	3		32AAACH1 118B1ZL	Yes
	AGE:N/A; MANUFACTURER:N/A; I	PORT,QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED					
120	JUNCTION BOX	12959-KOCHI LPG	Each	4	995461	32AAACH1 118B1ZL	Yes
DESC	RIPTION => SUPPLY AND INSTAI	LATION OF WEATHER PROOF JU	NCTION BOX AS PEI	R TENDER DOCUMENT.		·	

121	FLP JUNCTION BOX	12959-KOCHI LPG	Each	4	995461	32AAACH1 118B1ZL	Yes
WITH STEEL AMEN CLAM EARTI	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI	FOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE F TION OF ENGINEER-IN-CHARGE D MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK	2 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE LLL INCLUDE NECESSARY ' . ALL JUNCTION BOX, JUNG S FOR LOOP IN/LOOP OUT (EMPERATURE ED AS PER IS - FERMINALS F CTION BOX SH OF CABLES. C	E CLASS T3, S' 2148 WITH LA OR SUITABLI IALL HAVE E ONTRACTOR	FAINLESS ATEST E ENTRIES. XTERNAL SHALL
	FOR 6,P 1 SQ.MM AND 4 PAIR 1 S GI Pole 8 MT						
	RIPTION => PART NAME:CAMERA	A POLE; PART NUMBER:N/A; MAN	L NUFACTURER:N/A; E	L QUIPMENT NAME:CCTV SY	L YSTEM; EQUII		L:N/A; AS
123	ENDER DOCUMENT HARD DISK DRIVE per TB cost	12959-KOCHI LPG	Each	60		32AAACH1	Yes
DESC	RIPTION => SUPPLY, INSTALLAT	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	 DR STORAGE OF DATA FRO	M CAMERA F	118B1ZL OR A PERIOD	OF 90 DAYS
AS PE 124	R TECHNICAL SPECIFICATION. 55 inch LED TV	12959-KOCHI LPG	Each	2	998734	32AAACH1 118B1ZL	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION	ATTACHED.	l .	-	·
125	VIDEO MANAGEMENT SOFTWARE	12959-KOCHI LPG	Each	54	998733	32AAACH1 118B1ZL	Yes
	RIPTION => MANAGEMENT SOFT				LICENSE.		I.,
126	INSTLN COMMNG TESTING CCTV SYS	12959-KOCHI LPG	Lump Sum	1		32AAACH1 118B1ZL	Yes
	RIPTION => INSTALLATION AND IONED IN THE TENDER ATTACHN		EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
127	Fixed Camera FL12	12982-MANGLORE LPG IF	Each	19	85258090	29AAACH1 118B1Z8	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S' N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
128	PTZ CAMERA	12982-MANGLORE LPG IF	Each	2		29AAACH1 118B1Z8	Yes
	RIPTION => TYPE:PTZ NON FLAM	IEPROOF CAMERA; MANUFACTU	RER:N/A; MODEL NU	UMBER:N/A; IN ADDITION T	TO THIS, SPEC	CIFICATIONS I	MENTIONED
129	FLP Enclosur Fixed Camera F12	12982-MANGLORE LPG IF	Each	3		29AAACH1 118B1Z8	Yes
INSTI CERTI CLASS	RIPTION => PART NAME:FLAMEF TUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABL SIFICATION:ZONE I AND ZONE 2; ER COATING; EARTHLING:INTER	ARCH) APPROVED FLAME PROOI ; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V. ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO: 0529-1:2001: P	ERTIFICATES. NE 'AINT:EPOXY	ALSO PESO
130	Fixed camera motorized zoom2MP	12982-MANGLORE LPG IF	Each	2	85258020	29AAACH1 118B1Z8	Yes
	RIPTION => TYPE:HD IP FIXED CA MATION:2MP,WITH MOTORIZED			/VERINT/HONEYWELL; MC	DEL NUMBER		IONAL
131	Indoor (Dome) 2MP	12982-MANGLORE LPG IF	Each	3	85258020	29AAACH1 118B1Z8	Yes
	RIPTION => TYPE:HD IP DOME CATE; DETAILED SPECIFICATION SH		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	MFZ LENS PIC	KUP
132	Fixed Camera FL50	12982-MANGLORE LPG IF	Each	25	85258090	29AAACH1 118B1Z8	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S' N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					IIGHT
133	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12982-MANGLORE LPG IF	Meters	12200		29AAACH1 118B1Z8	Yes
	RIPTION => SUPPLY OF THE FO 7098 PART-1 AND AS PER SPECIA				THED STEEL	ARMOURED	CABLES AS
134	OPTICAL FIBER CABLE,SM,12 CORE	12982-MANGLORE LPG IF	Each	9100		29AAACH1 118B1Z8	Yes
	RIPTION => PART NAME:OFC CAL ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	I IPMENT NAME:CCTV SYST	EM; EQUIPME		I/A; AS PER
135	SPLY AND LAYG OF ARMOURED CAT6	12982-MANGLORE LPG IF	Meters	2020	995424	29AAACH1 118B1Z8	Yes
	RIPTION => SUPPLY AND LAYING URED3. CONDUCTOR DIAMETER					RING:GALVA	
136	GI EARTHING WIRE 8SWG	12982-MANGLORE LPG IF	Meters	8100	wivio. APP	29AAACH1 118B1Z8	Yes
	RIPTION => PROVIDING AND FIX						<u> </u>
137	SPLY&LAYG OF UNARMOURED CAT6	12982-MANGLORE LPG IF	Each	600	995424	29AAACH1 118B1Z8	Yes
DESC CHAR	RIPTION => PROVIDING AND LAY GE)	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTION	N OF ENGINE	ER-IN-
138	CONST OF CABLE TRENCH	12982-MANGLORE LPG IF	Meters	4000	995433	29AAACH1 118B1Z8	Yes
	RIPTION => UNDERGROUND-CAE EPTH, CABLE ROUTE MARKER-GA		D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO	N, 1800 MM V	/IDE, 1000
139	NETWORK SWITCH,MANAGED,8 PORT	12982-MANGLORE LPG IF	Each	5	84733091	29AAACH1 118B1Z8	Yes
	RIPTION => NETWORK SWITCH;	· · · · · · · · · · · · · · · · · · ·		E		20444014	Voc
140	NETWORK SWITCH, MANAGED 12 PORT	12982-MANGLORE LPG IF	Set	5		29AAACH1 118B1Z8	Yes

VOLT.	SCRIPTION => SWITCH,NETWORK; PORT,QUANTITY:12; DATA TRANSFER RATE:N/A; DATA LINK PROTOCOL:N/A; COMMUNICATION MODE:N/A; LTAGE:N/A; MANUFACTURER:N/A; MODEL NUMBER:N/A; MANAGED, IN ADDITION TO THIS, SPECIFICATIONS MENTIONED IN TENDER MUST BE LOWED								
141	JUNCTION BOX	12982-MANGLORE LPG IF	Each	31	995461	29AAACH1 118B1Z8	Yes		
DESC	RIPTION => SUPPLY AND INSTAI	LATION OF WEATHER PROOF JU	NCTION BOX AS PE	R TENDER DOCUMENT.			'		
142	FLP JUNCTION BOX	12982-MANGLORE LPG IF	Each	12	995461	29AAACH1 118B1Z8	Yes		
WITH STEEL AMEN CLAM EARTI TAKE	TERMINALS WITH TOP AND BOT LHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENS!	ND COMMISSIONING OF 12 WAY F TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE F TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO SQ.MM CABLE), 6 NOS 1/2 INCH (F	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF	166 CLASS PROTECTION, TI DII B, CCOE CMRI CERTIFIE ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURED AS PER IS - TERMINALS F CTION BOX SF OF CABLES. C I (FOR 18 P 1	E CLASS T3, S -2148 WITH LA FOR SUITABL HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4		
143	GI Pole 8 MT	12982-MANGLORE LPG IF	Each	43		29AAACH1 118B1Z8	Yes		
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	IUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS		
144	HARD DISK DRIVE per TB cost	12982-MANGLORE LPG IF	Each	100		29AAACH1 118B1Z8	Yes		
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	TON, TESTING AND COMMISSION	ING OF HDD/NAS FC	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS		
145	55 inch LED TV	12982-MANGLORE LPG IF	Each	4	998734	29AAACH1 118B1Z8	Yes		
DESC	RIPTION => SUPPLY AND INSTAI	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION	ATTACHED.					
146	VIDEO MANAGEMENT SOFTWARE	12982-MANGLORE LPG IF	Each	75	998733	29AAACH1 118B1Z8	Yes		
		TWARE: SUPPLY AND INSTALLAT			LICENSE.		I.,		
147	INSTLN COMMNG TESTING CCTV SYS	12982-MANGLORE LPG IF	Lump Sum	1		29AAACH1 118B1Z8	Yes		
MENT	IONED IN THE TENDER ATTACHM			T	1	1			
148	Fixed Camera FL12	12792-YEDIYUR-LPG	Each	16	85258090	29AAACH1 118B1Z8	Yes		
COMP				S PROTECTION:IP66; VIDEO			NIGHT		
149	FLP Enclosur Fixed Camera F12	12792-YEDIYUR-LPG	Each	7		29AAACH1 118B1Z8	Yes		
INSTITE CERTICLES	FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	PROOF ENCLOSURE; PART MATEI ARCH) APPROVED FLAME PROOI 3; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600° NAL -01 NO. EXTERNAL -02 NOS.;	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TON:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO		
150	Fixed camera motorized zoom2MP	12792-YEDIYUR-LPG	Each	2	85258020	29AAACH1 118B1Z8	Yes		
		AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S		/VERINT/HONEYWELL; MC	DDEL NUMBE	R:N/A; ADDIT	IONAL		
151	Indoor (Dome) 2MP	12792-YEDIYUR-LPG	Each	1	85258020	29AAACH1 118B1Z8	Yes		
	RIPTION => TYPE:HD IP DOME CACE; DETAILED SPECIFICATION SH	AMERA; MANUFACTURER:N/A; M EET ATTACHED.	ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ION:IRF AND I	MFZ LENS PIC	CKUP		
152	Fixed Camera FL50	12792-YEDIYUR-LPG	Each	11	85258090	29AAACH1 118B1Z8	Yes		
COMP		TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENSE ONVIF COMPLIANT WITH POE.					NIGHT		
153	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12792-YEDIYUR-LPG	Meters	1000		29AAACH1 118B1Z8	Yes		
		LLOWING 1100 VOLTS COPPER FICATIONS OF THIS TENDER.SUPI			THED STEEL	ARMOURED	CABLES AS		
154	OPTICAL FIBER CABLE,SM,12 CORE	12792-YEDIYUR-LPG	Each	750		29AAACH1 118B1Z8	Yes		
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	V/A; AS PER		
155	SPLY AND LAYG OF ARMOURED CAT6	12792-YEDIYUR-LPG	Meters	2000	995424	29AAACH1 118B1Z8	Yes		
		G OF CAT6 ARMOURED NETWORI :23 AWG4. TEMPERATURE RATIN							
156	GI EARTHING WIRE 8SWG	12792-YEDIYUR-LPG	Meters	600	7.03 WIWIO. 741 I	29AAACH1 118B1Z8	Yes		
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR	FACE OR IN RECESS	FOR LOOP EARTHING AS	REQUIRED.				
157	SPLY&LAYG OF UNARMOURED CAT6	12792-YEDIYUR-LPG	Each	750	995424	29AAACH1 118B1Z8	Yes		
DESC CHAR	RIPTION => PROVIDING AND LA	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO		ER-IN-		
158	CONST OF CABLE TRENCH	12792-YEDIYUR-LPG	Meters	3000	995433	29AAACH1 118B1Z8	Yes		
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G.	BLE TRENCH: EXCAVATION, SAN ALVANIZED.	D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO		VIDE, 1000		
159	NETWORK SWITCH,MANAGED,8 PORT	12792-YEDIYUR-LPG	Each	6	84733091	29AAACH1 118B1Z8	Yes		
DESC 160	RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT	NUMBER OF PORTS:8; APPLICATI 12792-YEDIYUR-LPG	ON:OUTDOOR Set	6		29AAACH1 118B178	Yes		

	AGE:N/A; MANUFACTURER:N/A; N	PORT,QUANTITY:12; DATA TRANS MODEL NUMBER:N/A; MANAGED,					
161	JUNCTION BOX	12792-YEDIYUR-LPG	Each	7	995461	29AAACH1 118B1Z8	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF WEATHER PROOF JUI	NCTION BOX AS PER	R TENDER DOCUMENT.			
162	FLP JUNCTION BOX	12792-YEDIYUR-LPG	Each	5	995461	29AAACH1 118B1Z8	Yes
WITH STEEL AMEN CLAM EARTI TAKE	TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE HERMINAL. JUNCTION BOX SHATTHE APPROVAL OF THE DIMENS!	ND COMMISSIONING OF 12 WAY F TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE F TION OF ENGINEER-IN-CHARGE : ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRC SQ.MM CABLE), 6 NOS 1/2 INCH (F	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINKS OM ENGINEER-IN-CH	66 CLASS PROTECTION, TE II B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY T ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT C IARGE. 2 NO 1 1/2 INCH NPT	EMPERATURE D AS PER IS - FERMINALS F TION BOX SH OF CABLES. C T (FOR 18 P 1 S	E CLASS T3, ST 2148 WITH LA FOR SUITABLE IALL HAVE E CONTRACTOR SQ.MM CABLE	TAINLESS TEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
163	GI Pole 8 MT	12792-YEDIYUR-LPG	Each	25		29AAACH1 118B1Z8	Yes
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV SY	YSTEM; EQUIF	PMENT MODE	L:N/A; AS
164	HARD DISK DRIVE per TB cost	12792-YEDIYUR-LPG	Each	60		29AAACH1 118B1Z8	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	R STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
165	55 inch LED TV	12792-YEDIYUR-LPG	Each	1	998734	29AAACH1 118B1Z8	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION A	ATTACHED.			
166	VIDEO MANAGEMENT SOFTWARE	12792-YEDIYUR-LPG	Each	52	998733	29AAACH1 118B1Z8	Yes
		WARE: SUPPLY AND INSTALLAT	ION OF CCTV VMS S	OFTWARE FOR CAMERAS	LICENSE.		
167	INSTLN COMMNG TESTING CCTV SYS	12792-YEDIYUR-LPG	Lump Sum	1		29AAACH1 118B1Z8	Yes
	RIPTION => INSTALLATION AND IONED IN THE TENDER ATTACHN	COMMISSIONING OF CCTV SYST	EM AND ASSOCIATE	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
168	Fixed Camera FL12	12947-MADURAI LPG	Each	13	85258090	33AAACH1 118B1ZJ	Yes
COMP		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS ONVIF COMPLIANT WITH POE					NIGHT
169	PTZ CAMERA	12947-MADURAI LPG	Each	1		33AAACH1 118B1ZJ	Yes
		MEPROOF CAMERA; MANUFACTU	RER:N/A; MODEL NU	JMBER:N/A; IN ADDITION T	O THIS, SPEC	TIFICATIONS 1	MENTIONED
IN TEN 170	NDER MUST BE FOLLOWED FLP Enclosur Fixed Camera F12	12947-MADURAI LPG	Each	5		33AAACH1	Yes
INSTIT CERTI CLASS POWD	CUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	PROOF ENCLOSURE; PART MATER PARCH) APPROVED FLAME PROOF I; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC6007 NAL -01 NO. EXTERNAL -02 NOS.; 12947-MADURAI LPG	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS II	ICAL ENCLOSURE WITH VA ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 179-1:2007, ZOI 0529-1:2001; P	ERTIFICATES. NE AINT:EPOXY	ALSO PESO
	zoom2MP	AMERA: MANUFACTURER:BOSCH				118B1ZJ	
		ZOOM; AS PER SPECIFICATION SI		VERINI/HONE I WELL, MO	DEL NUMBER	X.IV/A, ADDITI	ONAL
172	Indoor (Dome) 2MP	12947-MADURAI LPG	Each	3	85258020	33AAACH1 118B1ZJ	Yes
	RIPTION => TYPE:HD IP DOME CA E; DETAILED SPECIFICATION SH	AMERA; MANUFACTURER:N/A; M EET ATTACHED.	ODEL NUMBER:N/A;	ADDITIONAL INFORMATI	ON:IRF AND I	MFZ LENS PIC	KUP
173	Fixed camera Motorized zoom 4K	12947-MADURAI LPG	Each	1		33AAACH1 118B1ZJ	Yes
	RIPTION => TYPE:FIXED NON FL. IONED IN TENDER MUST BE FOLI	AME PROOF 4K CAMERA; MANUF LOWED	FACTURER:N/A; MOD	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	IONS
174	Fixed Camera FL50	12947-MADURAI LPG	Each	3	85258090	33AAACH1 118B1ZJ	Yes
COMP		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS ONVIF COMPLIANT WITH POE.					IGHT
175	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12947-MADURAI LPG	Meters	1050		33AAACH1 118B1ZJ	Yes
		LLOWING 1100 VOLTS COPPER FICATIONS OF THIS TENDER.SUPP			THED STEEL	ARMOURED	CABLES AS
176	OPTICAL FIBER CABLE,SM,12 CORE	12947-MADURAI LPG	Each	1000		33AAACH1 118B1ZJ	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQUI	IPMENT NAME:CCTV SYST	EM; EQUIPME	ENT MODEL:N	/A; AS PER
177	SPLY AND LAYG OF ARMOURED CAT6	12947-MADURAI LPG	Meters	2675	995424	33AAACH1 118B1ZJ	Yes
		G OF CAT6 ARMOURED NETWORK :23 AWG4. TEMPERATURE RATIN					
178	GI EARTHING WIRE 8SWG	12947-MADURAI LPG	Meters	1600		33AAACH1 118B1ZJ	Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR	FACE OR IN RECESS	FOR LOOP EARTHING AS I	REQUIRED.		
179	SPLY&LAYG OF UNARMOURED CAT6	12947-MADURAI LPG	Each	750	995424	33AAACH1 118B1ZJ	Yes
DESC		YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/EC	QUIVALEN MAKES AS PER	INSTRUCTION	N OF ENGINE	ER-IN-

180	CONST OF CABLE TRENCH	12947-MADURAI LPG	Meters	750	995433	33AAACH1 118B1ZJ	Yes
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G.	BLE TRENCH: EXCAVATION, SAN	D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO	N, 1800 MM W	/IDE, 1000
181	NETWORK SWITCH,MANAGED,8 PORT	12947-MADURAI LPG	Each	6	84733091	33AAACH1 118B1ZJ	Yes
DESC		NUMBER OF PORTS:8; APPLICATI	ON:OUTDOOR			11100120	
182	NETWORK SWITCH,MANAGED 12 PORT	12947-MADURAI LPG	Set	4		33AAACH1 118B1ZJ	Yes
VOLT.	DESCRIPTION => SWITCH,NETWORK; PORT,QUANTITY:12; DATA TRANSFER RATE:N/A; DATA LINK PROTOCOL:N/A; COMMUNICATION MODE:N/A; /OLTAGE:N/A; MANUFACTURER:N/A; MODEL NUMBER:N/A; MANAGED, IN ADDITION TO THIS, SPECIFICATIONS MENTIONED IN TENDER MUST BE /OLLOWED						
183	JUNCTION BOX	12947-MADURAI LPG	Each	5	995461	33AAACH1 118B1ZJ	Yes
		LLATION OF WEATHER PROOF JU	1		i		
184	FLP JUNCTION BOX	12947-MADURAI LPG	Each	2	995461	33AAACH1 118B1ZJ	Yes
WITH STEEL AMEN CLAM EARTI TAKE	TERMINALS WITH TOP AND BOT , HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENS!	ND COMMISSIONING OF 12 WAY F TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE F TION OF ENGINEER-IN-CHARGE. ED MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO SQ.MM CABLE), 6 NOS 1/2 INCH (F	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CF	P 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE LLL INCLUDE NECESSARY " A ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT ' HARGE. 2 NO 1 1/2 INCH NP'	EMPERATURE ED AS PER IS - FERMINALS F CTION BOX SH OF CABLES. C F (FOR 18 P 1	E CLASS T3, ST -2148 WITH LA FOR SUITABLE HALL HAVE E CONTRACTOR SQ.MM CABLE	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
185	GI Pole 8 MT	12947-MADURAI LPG	Each	15		33AAACH1 118B1ZJ	Yes
		A POLE; PART NUMBER:N/A; MAN	I NUFACTURER:N/A; E	QUIPMENT NAME:CCTV SY	YSTEM; EQUII		L:N/A; AS
186	ENDER DOCUMENT HARD DISK DRIVE per TB cost	12947-MADURAI LPG	Each	40		33AAACH1	Yes
	 RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	I ION, TESTING AND COMMISSION	L ING OF HDD/NAS FO	L DR STORAGE OF DATA FRO	M CAMERA F	118B1ZJ OR A PERIOD	OF 90 DAYS
187	55 inch LED TV	12947-MADURAI LPG	Each	2	998734	33AAACH1	Yes
DESC	RIPTION => SUPPLY AND INSTAI	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION	ATTACHED.		118B1ZJ	
188	VIDEO MANAGEMENT	12947-MADURAI LPG	Each	41	998733	33AAACH1 118B1ZJ	Yes
DESC	SOFTWARE RIPTION => MANAGEMENT SOFT	L TWARE: SUPPLY AND INSTALLAT	I TON OF CCTV VMS S	SOFTWARE FOR CAMERAS	LICENSE.	TIIODIZJ	
189	INSTLN COMMNG TESTING CCTV SYS	12947-MADURAI LPG	Lump Sum	1		33AAACH1 118B1ZJ	Yes
	RIPTION => INSTALLATION AND IONED IN THE TENDER ATTACHN	COMMISSIONING OF CCTV SYST	EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
190	CAMC FOR CCTV SYSTEM PER YEAR	12779-MYSORE LPG	Year	5		29AAACH1 118B1Z8	Yes
DESC		LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI		FOR SUPPLI	ED SYSTEM.	
191	CAMC FOR CCTV SYSTEM PER YEAR	12777-MANGLORE LPG	Year	5		29AAACH1 118B1Z8	Yes
DESC 192	RIPTION => CAMC FOR SURVEIL CAMC FOR CCTV SYSTEM	LANCE SYSTEM: COMPREHENSIV 12892-HUBLI LPG	/E AMC AFTER EXPI Year	RY OF WARRANTY PERIOD 5	FOR SUPPLI		Yes
192	PER YEAR	12092-HUBLI LFG	real	5		118B1Z8	162
DESC 193	RIPTION => CAMC FOR SURVEIL CAMC FOR CCTV SYSTEM PER YEAR	LANCE SYSTEM: COMPREHENSIV 12844-GUMMIDIPOONDI LPG PLANT	YE AMC AFTER EXPI Year	RY OF WARRANTY PERIOD 5	FOR SUPPLI	33AAACH1 118B1ZJ	Yes
DESC	RIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOD	FOR SUPPLI	ED SYSTEM.	
194	CAMC FOR CCTV SYSTEM PER YEAR	12949-PALGHAT LPG PLANT	Year	5		32AAACH1 118B1ZL	Yes
DESC		LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI		FOR SUPPLI	ED SYSTEM.	
195	CAMC FOR CCTV SYSTEM PER YEAR	12959-KOCHI LPG	Year	5		32AAACH1 118B1ZL	Yes
DESC	RIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOD	FOR SUPPLI	ED SYSTEM.	
196	CAMC FOR CCTV SYSTEM PER YEAR	12982-MANGLORE LPG IF	Year	5		29AAACH1 118B1Z8	Yes
DESC		LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOD	FOR SUPPLI		
197	CAMC FOR CCTV SYSTEM PER YEAR	12792-YEDIYUR-LPG	Year	5		29AAACH1 118B1Z8	Yes
DESC		LANCE SYSTEM: COMPREHENSIV			FOR SUPPLI		
198	CAMC FOR CCTV SYSTEM PER YEAR	12947-MADURAI LPG	Year	5		33AAACH1 118B1ZJ	Yes
DESC	RIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOD	FOR SUPPLI	ED SYSTEM.	
		edule 4 NORTH CENTRAL ZONE	I	I	I		anadatory: No
1	Fixed Camera FL12	12316-UNNAO LPG	Each	13	85258090	09AAACH1 118B1ZA	Yes
COMP		TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENS ONVIF COMPLIANT WITH POE					NIGHT
2	PTZ CAMERA	12316-UNNAO LPG	Each	1		09AAACH1 118B1ZA	Yes
	RIPTION => TYPE:PTZ NON FLAM NDER MUST BE FOLLOWED	MEPROOF CAMERA; MANUFACTU	RER:N/A; MODEL N	UMBER:N/A; IN ADDITION	TO THIS, SPEC	ZIFICATIONS N	MENTIONED
3	FLP Enclosur Fixed Camera F12	12316-UNNAO LPG	Each	8		09AAACH1 118B1ZA	Yes

INSTI	TUTE OF MINING AND FUEL RESE		F ALUMINA ELECTR	ICAL ENCLOSURE WITH V	ALID TEST CE	ERTIFICATES.		
CLASS	IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	GAS GROUP:IIA, IIB, T6 IS/IEC600'	79-0:2004, INGRESS I	P PROTECTION: IP66 IS/IEC6	60529-1:2001; F	PAINT:EPOXY	POLYESTER	
POWD 4	DER COATING; EARTHLING:INTER Fixed camera motorized Izoom2MP	NAL -01 NO. EXTERNAL -02 NOS.; 12316-UNNAO LPG	Each	PER REQUIRE; HARDWARE 3	85258020	09AAACH1 118B1ZA	Yes	
	RIPTION => TYPE:HD IP FIXED CA			L /VERINT/HONEYWELL; MC	I DEL NUMBEI		IONAL	
INFOR	Indoor (Dome) 2MP	ZOOM; AS PER SPECIFICATION S. 12316-UNNAO LPG	HEET ATTACHED. Each	4	85258020	09AAACH1 118B1ZA	Yes	
DESC	RIPTION => TYPE:HD IP DOME CA	l AMERA; MANUFACTURER:N/A; M	<u> </u> ODEL NUMBER:N/A	l ; ADDITIONAL INFORMATI	ON:IRF AND I		CKUP	
DEVIO	CE; DETAILED SPECIFICATION SH Fixed camera Motorized zoom 4K		Each	2		09AAACH1	Yes	
						118B1ZA		
	RIPTION => TYPE:FIXED NON FLATIONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TONS	
7	Fixed Camera FL50	12316-UNNAO LPG	Each	8	85258090	09AAACH1 118B1ZA	Yes	
COMP	RIPTION => IP/NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S	TREAM; FOCAL LENGTH OF LENS				AGE	NIGHT	
8	N:REQUIRED; CAMERA SHALL BE 3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12316-UNNAO LPG	Meters	1500		09AAACH1 118B1ZA	Yes	
	RIPTION => SUPPLY OF THE FO				THED STEEL		CABLES AS	
9 PER 15	OPTICAL FIBER CABLE, SM, 12	12316-UNNAO LPG	Each	1800		09AAACH1	Yes	
DECC	CORE PRIPTION => PART NAME:OFC CA	DI E. DADT NIJADED NI/A . MANUJE	CACTUDED N/A : FOU	IDMENT NAME COTY CYCT	EM. EQUIDMI	118B1ZA	I/A. AC DED	
TEND	ER DOCUMENT	,	, `	T				
10	SPLY AND LAYG OF ARMOURED CAT6	12316-UNNAO LPG	Meters	1500	995424	09AAACH1 118B1ZA	Yes	
	RIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER							
11	GI EARTHING WIRE 8SWG	12316-UNNAO LPG	Meters	1000		09AAACH1 118B1ZA	Yes	
	RIPTION => PROVIDING AND FIX				_ `	1		
12	SPLY&LAYG OF UNARMOURED CAT6	12316-UNNAO LPG	Each	500	995424	09AAACH1 118B1ZA	Yes	
DESC CHAR	RIPTION => PROVIDING AND LA'GE)	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-	
13	CONST OF CABLE TRENCH	12316-UNNAO LPG	Meters	500	995433	09AAACH1 118B1ZA	Yes	
	DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM WIDE, 1000							
	EPTH, CABLE ROUTE MARKER-G							
MM D			Each	6	84733091	09AAACH1 118B1ZA	Yes	
MM D 14 DESC	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH;	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI	ON:OUTDOOR		84733091	118B1ZA		
MM D 14	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH,MANAGED,8 PORT	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI		6	84733091		Yes	
MM D 14 DESC 15 DESC VOLT	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, NETWORK; AGE:N/A; MANUFACTURER: N/A; N	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT,QUANTITY:12; DATA TRAN.	ON:OUTDOOR Set SFER RATE:N/A; DA'	6 TA LINK PROTOCOL:N/A; C	OMMUNICAT	09AAACH1 118B1ZA TON MODE:N	Yes	
MM D 14 DESC 15 DESC VOLT FOLLO	EPTH, CABLE ROUTE MARKER-GA NETWORK SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK;	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT,QUANTITY:12; DATA TRAN.	ON:OUTDOOR Set SFER RATE:N/A; DA'	6 TA LINK PROTOCOL:N/A; C	OMMUNICAT	09AAACH1 118B1ZA TON MODE:N	Yes	
MM D 14 DESC 15 DESC VOLT. FOLLO 16	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, NETWORK; AGE:N/A; MANUFACTURER: N/A; NOWED	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT,QUANTITY:12; DATA TRAN. MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG LATION OF WEATHER PROOF JU	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI	6 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN'	OMMUNICAT	09AAACH1 118B1ZA TON MODE:N NDER MUST	Yes /A; BE	
MM D 14 DESC 15 DESC VOLT FOLLO 16 DESC	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, NETWORK; AGE: N/A; MANUFACTURER: N/A; NOWED JUNCTION BOX	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT,QUANTITY:12; DATA TRAN. MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI	6 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN'	OMMUNICAT	09AAACH1 118B1ZA TON MODE:N NDER MUST	Yes /A; BE	
MM D 14 DESC 15 DESC 16 DESC 17 DESC 17 DESC 17 DESC 17 TABLE TA	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, NETWORK; NAGE: N/A; MANUFACTURER: N/A; NOWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT LHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIRECT P TYPE TERMINALS OF APPROVE H TERMINAL JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT, QUANTITY:12; DATA TRAN. MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG LATION OF WEATHER PROOF JU 12316-UNNAO LPG ND COMMISSIONING OF 12 WAY FOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE IS TION OF ENGINEER-IN-CHARGE DO MAKE OR GUIVALENT SHALL BE OF COMPLETE WITH REQUIR LONS OF THIS JUNCTION BOX FROM CABLE), 6 NOS 1/2 INCH (F	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO THE ADDITION TO THE ADDITION TO THE ADDITION HOLD TO THE ADDIT	6 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 11 R TENDER DOCUMENT. 23 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TO JI B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT JARGE. 2 NO 1 1/2 INCH NPD 1 P 1 SQ.MM CABLE) NPT	OMMUNICAT FIONED IN TE 995461 995461 DEXPLOSION EMPERATURE FIERMINALS F TITION BOX SE OF CABLES. C () (FOR 18 P I	09AAACH1 118B1ZA TON MODE:N. NDER MUST 09AAACH1 118B1ZA 09AAACH1 118B1ZA PROOF JUNC'S 2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL RMINALS (TE	Yes Yes Yes Yes Yes Yes TION BOX TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4 3).	
MM D 14 DESC 15 DESC 16 DESC 17 DESC 17 DESC 17 DESC 17 TABLE TA	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, NETWORK; AGE: N/A; MANUFACTURER: N/A; NOWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT THARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIRECT TYPE TERMINALS OF APPROVE TYPE TERMINALS OF APPROVE THE APPROVAL OF THE DIMENSI	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT, QUANTITY:12; DATA TRAN. MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG LATION OF WEATHER PROOF JU 12316-UNNAO LPG ND COMMISSIONING OF 12 WAY FOR TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE FOR TOM TYPE CABLE ENTRIES, LM 6 TION OF ENGINEER-IN-CHARGE OF THE SUITABLE FOR TH	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PERE EACH FLP EXD TYPE MULTICONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHAL BE PROVIDED FOR BOX SHAL BE PROVIDED FOR CONSTRUCTION IN BOX SHAL BE SHORTING LINK DIM ENGINEER-IN-CF	6 11 R TENDER DOCUMENT. 23 I WAY FLAME PROOF AND 66 CLASS PROTECTION, TO JI B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ALL JUNCTION BOX, JUNC S FOR LOOP IN/LOOP OUT JARGE. 2 NO 1 1/2 INCH NP	OMMUNICAT FIONED IN TE 995461 995461 DEXPLOSION EMPERATURE FIERMINALS F TITION BOX SE OF CABLES. C () (FOR 18 P I	09AAACH1 118B1ZA TON MODE:N, NDER MUST 09AAACH1 118B1ZA 09AAACH1 118B1ZA PROOF JUNC 6 CLASS T3, S' 22148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	Yes Yes Yes Yes TION BOX FAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4	
MM D DESC 15 DESC VOLT. FOLLO 16 DESC 17 DESC WITH DESC HITH HITH DESC HITH DESC HITH HITH DESC HITH DESC HITH HITH HITH HITH HITH DESC HITH	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, NETWORK; NASH, MANUFACTURER: N/A; NOWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIRECT TYPE TERMINALS OF APPROVE H TERMINAL, JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S GI POIE 8 MT RIPTION => PART NAME: CAMER.	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT, QUANTITY:12; DATA TRAN. MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG LATION OF WEATHER PROOF JU 12316-UNNAO LPG ND COMMISSIONING OF 12 WAY FOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE FION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR LONS OF THIS JUNCTION BOY FROM CABLE), 6 NOS 1/2 INCH (F	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PER Each FLP EXD TYPE MULTI CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CHOR 2 P 1 SQ.MM AND Each	6 11 R TENDER DOCUMENT. 23 I WAY FLAME PROOF AND 66 CLASS PROTECTION, TO JII B, CCOE CMRI CERTIFIELL INCLUDE NECESSARY 'ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT JARGE. 2 NO 1 1/2 INCH NPD 1 P 1 SQ.MM CABLE) NPT	OMMUNICATIONED IN TE 995461 995461 DEXPLOSION EMPERATURE ED AS PER IS- FERMINALS F CTION BOX SE OF CABLES. (7 (FOR 18 P 1 ENTRY. 75 TE	09AAACH1 118B1ZA 109AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA PROOF JUNC 6 CLASS T3, S' 2148 WITH LA' OR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL RMINALS (TE 09AAACH1 118B1ZA	Yes Yes Yes Yes Your and the state of th	
MM D 14 DESC 15 DESC VOLT. FOLLO 16 DESC 17 DESC WITH STEEL AMEN EARTITAKE INCH 18 DESC PER T	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, NETWORK; AGE:N/A; MANUFACTURER:N/A; NOWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT . HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL, JUNCTION BOX SHAPPOVAL THE APPROVAL OF THE DIREC IP TYPE TERMINALS OF THE DIREC IP THE APPROVAL OF THE DIREC IP TOPO TH	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT, QUANTITY:12; DATA TRAN. MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG LATION OF WEATHER PROOF JU 12316-UNNAO LPG ND COMMISSIONING OF 12 WAY FOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE FION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR LONS OF THIS JUNCTION BOY FROM CABLE), 6 NOS 1/2 INCH (F	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PER Each FLP EXD TYPE MULTI CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CHOR 2 P 1 SQ.MM AND Each	6 11 R TENDER DOCUMENT. 23 I WAY FLAME PROOF AND 66 CLASS PROTECTION, TO JII B, CCOE CMRI CERTIFIELL INCLUDE NECESSARY 'ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT JARGE. 2 NO 1 1/2 INCH NPD 1 P 1 SQ.MM CABLE) NPT	OMMUNICATIONED IN TE 995461 995461 DEXPLOSION EMPERATURE ED AS PER IS- FERMINALS F CTION BOX SE OF CABLES. (7 (FOR 18 P 1 ENTRY. 75 TE	09AAACH1 118B1ZA 109AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA PROOF JUNC 6 CLASS T3, S' 2148 WITH LA' OR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL RMINALS (TE 09AAACH1 118B1ZA	Yes Yes Yes Yes Your and the state of th	
MM D 14 DESC 15 DESC 16 DESC 17 DESC 18 DESC 19 DESC	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, METWORK; NAGE: N/A; MANUFACTURER: N/A; NOWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT L HARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIRECT P TYPE TERMINALS OF APPROVE THE APPROVAL OF THE DIMENSI (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S GI POILS & MT RIPTION => PART NAME: CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => SUPPLY, INSTALLAT	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT, QUANTITY:12; DATA TRAN. MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG LATION OF WEATHER PROOF JU 12316-UNNAO LPG NEOPRENE GASKET, SUITABLE ISTION OF ENGINEER-IN-CHARGE DAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH SHALI ALL BE COMPLETE WIT	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PER Each TLP EXD TYPE MULT CONSTRUCTION, IP OR GROUP II A ANI JUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF OR 2 P I SQ.MM ANI Each NUFACTURER:N/A; E	6 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 11 R TENDER DOCUMENT. 23 TI WAY FLAME PROOF AND 10 IB, CCOE CMRI CERTIFIE 11 LI INCLUDE NECESSARY ALL JUNCTION BOX JUNC 25 FOR LOOP IN/LOOP OUT 14 ARGE. 2 NO 1 1/2 INCH NP 17 P I SQ.MM CABLE) NPT 15 QUIPMENT NAME:CCTV SY 40	OMMUNICAT FIONED IN TE 995461 995461 DEXPLOSION EMPERATURE ED AS PER IS- FERMINALS F TERMINALS F TOOR 18 P 1 ENTRY. 75 TE	09AAACH1 118B1ZA 10N MODE:N, NDER MUST 1 09AAACH1 118B1ZA 09AAACH1 118B1ZA PROOF JUNC' 6 CLASS T3, 5' 2148 WITH LA' FOR SUITABLI HALL HAVE E ONTRACTOR SQ.MM CABL RMINALS (TE 09AAACH1 118B1ZA 09AAACH1 118B1ZA	Yes Yes Yes TION BOX TAINLESS ATEST E ENTRIES. STERNAL SHALL E), 4 NO 3/4 3). Yes EL:N/A; AS	
MM D 14 DESC 15 DESC 16 DESC 17 DESC 18 DESC 19 DESC	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, NETWORK; NETWORK SWITCH, MANUFACTURER: N/A; NEWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY INSTALL AN TERMINALS WITH TOP AND BOT LHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC FTYPE TERMINALS OF APPROVE H TERMINAL JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6, P. 1 SQ.MM AND 4 PAIR 1 S GI POLE 8 MT RIPTION => PART NAME:CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT, QUANTITY:12; DATA TRAN. MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG LATION OF WEATHER PROOF JU 12316-UNNAO LPG NEOPRENE GASKET, SUITABLE ISTION OF ENGINEER-IN-CHARGE DAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREED MAKE OR EXPLOSIVE SHALI ALL BE COMPLETE WITH SHALI ALL BE COMPLETE WIT	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PER Each TLP EXD TYPE MULT CONSTRUCTION, IP OR GROUP II A ANI JUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF OR 2 P I SQ.MM ANI Each NUFACTURER:N/A; E	6 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 11 R TENDER DOCUMENT. 23 TI WAY FLAME PROOF AND 10 IB, CCOE CMRI CERTIFIE 11 LI INCLUDE NECESSARY ALL JUNCTION BOX JUNC 25 FOR LOOP IN/LOOP OUT 14 ARGE. 2 NO 1 1/2 INCH NP 17 P I SQ.MM CABLE) NPT 15 QUIPMENT NAME:CCTV SY 40	OMMUNICAT FIONED IN TE 995461 995461 DEXPLOSION EMPERATURE ED AS PER IS- FERMINALS F TERMINALS F TOOR 18 P 1 ENTRY. 75 TE	09AAACH1 118B1ZA 10N MODE:N, NDER MUST 1 09AAACH1 118B1ZA 09AAACH1 118B1ZA PROOF JUNC' 6 CLASS T3, 5' 2148 WITH LA' FOR SUITABLI HALL HAVE E ONTRACTOR SQ.MM CABL RMINALS (TE 09AAACH1 118B1ZA 09AAACH1 118B1ZA	Yes Yes Yes TION BOX TAINLESS ATEST E ENTRIES. STERNAL SHALL E), 4 NO 3/4 3). Yes EL:N/A; AS	
MM D 14 DESC 15 DESC VOLT. FOLLO 16 DESC 17 DESC WITH STEEL AMEN CLAME LARE INCH 18 DESC AS PE 20 DESC DESC DESC DESC DESC DESC DESC DESC DESC	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, NETWORK; AGE:N/A; MANUFACTURER:N/A; NOWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT . HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE H TERMINAL, JUNCTION BOX SHA THE APPROVAL OF THE DIMENS (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S GI POLE 8 MT RIPTION => PART NAME:CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION. 55 inch LED TV RIPTION => SUPPLY AND INSTAL	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT, QUANTITY:12; DATA TRAN. MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG LATION OF WEATHER PROOF JU. 12316-UNNAO LPG ND COMMISSIONING OF 12 WAY FOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE ITON OF ENGINEER-IN-CHARGE. DO MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR LO SOFTHIS JUNCTION BOX FROQUMM CABLE), 6 NOS 1/2 INCH (F. 12316-UNNAO LPG A POLE; PART NUMBER:N/A; MAN. 12316-UNNAO LPG ION, TESTING AND COMMISSION 12316-UNNAO LPG LATION OF 55 INCH LED TV AS P.	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PER Each FLP EXD TYPE MULTI CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHAL BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CHOR 2 P 1 SQ.MM AND Each NUFACTURER:N/A; E Each ING OF HDD/NAS FOR	66 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 11 R TENDER DOCUMENT. 23 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TO JI B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT JARGE. 2 NO 1 1/2 INCH NPT 15 P 1 SQ.MM CABLE) NPT 15 QUIPMENT NAME:CCTV S' 40 OR STORAGE OF DATA FRO	OMMUNICAT FIONED IN TE 995461 995461 D EXPLOSION EMPERATURE FION BOX SE FITION BOX SE	09AAACH1 118B1ZA 09AAACH1 118B1ZA 109AAACH1 118B1ZA 09AAACH1 118B1ZA PROOF JUNC'E CLASS T3, S' 22148 WITH LA' FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL RMINALS (TE 09AAACH1 118B1ZA PMENT MODE 09AAACH1 118B1ZA OR A PERIOD 09AAACH1 118B1ZA	Yes A; BE Yes Yes TION BOX FAINLESS ATEST E ENTRIES. XTERNAL E), 4 NO 3/4 B). Yes EL:N/A; AS Yes OF 90 DAYS Yes	
MM D 14 DESC 15 DESC VOLT. FOLLO 16 DESC 17 DESC WITH STEEL CLAMEN CLAMEN CLAMEN 18 DESC 19 DESC	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, NETWORK; AGE:N/A; MANUFACTURER:N/A; NOWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT . HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE H TERMINAL, JUNCTION BOX SHA THE APPROVAL OF THE DIMENS (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S GI POLE 8 MT RIPTION => PART NAME:CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION. 55 inch LED TV	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT, QUANTITY:12; DATA TRAN. MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG LATION OF WEATHER PROOF JU. 12316-UNNAO LPG ND COMMISSIONING OF 12 WAY FOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE ITON OF ENGINEER-IN-CHARGE. DO MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR LO SOF THIS JUNCTION BOX FROQUM CABLE), 6 NOS 1/2 INCH (FOR 12316-UNNAO LPG) A POLE; PART NUMBER:N/A; MAN 12316-UNNAO LPG ION, TESTING AND COMMISSION 12316-UNNAO LPG	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PER Each FLP EXD TYPE MULTICONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHAL BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CHOR 2 P 1 SQ.MM AND EACH EACH ING OF HDD/NAS FOR EACH	6 11 R TENDER DOCUMENT. 23 I WAY FLAME PROOF AND 66 CLASS PROTECTION, TO 10 II B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ALL JUNCTION BOX, JUNC S FOR LOOP IN/LOOP OUT 14 ARGE. 2 NO 1 1/2 INCH NPT 15 IV 19	OMMUNICAT FIONED IN TE 995461 995461 D EXPLOSION EMPERATURE ED AS PER IS- FERMINALS F TIION BOX SF TION BOX SF TION BOX SF TION BOX SF TION BOX SF TION FOR IS P I ENTRY. 75 TE	09AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA PROOF JUNC'E CLASS T3, S' 22148 WITH LA' OR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL RMINALS (TE 09AAACH1 118B1ZA PMENT MODE 09AAACH1 118B1ZA OR A PERIOD 09AAACH1	Yes A: BE Yes Yes Yes Yes TION BOX TAINLESS ATEST E ENTRIES. XTERNAL E), 4 NO 3/4 E). Yes CL:N/A; AS Yes OF 90 DAYS	
MM D 14 DESC 15 DESC VOLT. FOLLO 16 DESC 17 DESC WITH STEEL AMEN CAMPE CAMPE 19 DESC 20 DESC 21 DESC 21	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, NETWORK; NOWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT . HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIRECE PTYPE TERMINALS OF APPROVE H TERMINAL, JUNCTION BOX SHAT THE APPROVAL OF THE DIMENS (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S GI POIE 8 MT RIPTION => PART NAME:CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION. 55 inch LED TV RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT, QUANTITY:12; DATA TRAN. MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG LATION OF WEATHER PROOF JU 12316-UNNAO LPG ND COMMISSIONING OF 12 WAY HOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE HOM TO FENGINEER-IN-CHARGE DI MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FROM CABLE), 6 NOS 1/2 INCH (F) 12316-UNNAO LPG A POLE; PART NUMBER:N/A; MAN 12316-UNNAO LPG ION, TESTING AND COMMISSION 12316-UNNAO LPG LATION OF 55 INCH LED TV AS P 12316-UNNAO LPG WARE: SUPPLY AND INSTALLAT	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PEI Each FLP EXD TYPE MULT CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA LBE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF OR 2 P 1 SQ.MM AND Each UFACTURER:N/A; E Each ING OF HDD/NAS FOR Each Each ION OF CCTV VMS S	6 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 11 R TENDER DOCUMENT. 23 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI 0 II B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY' ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT 1ARGE. 2 NO 1 1/2 INCH NP' 1 P 1 SQ.MM CABLE) NPT 15 QUIPMENT NAME:CCTV S' 40 OR STORAGE OF DATA FRO 2 ATTACHED. 42	OMMUNICAT FIONED IN TE 995461 995461 DEXPLOSION EMPERATURE ED AS PER IS- FERMINALS F TETION BOX SF OF CABLES. OF (FOR 18 P 1 ENTRY. 75 TE YSTEM; EQUIL M CAMERA F 998734	09AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA PROOF JUNC 6 CLASS T3, S' 2148 WITH LA' OR SUITABLI ALL HAVE E CONTRACTOR SQ.MM CABL EMINALS (TE 09AAACH1 118B1ZA PMENT MODE 09AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA	Yes A; BE Yes Yes TION BOX TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4 8). Yes CL:N/A; AS Yes Yes Yes Yes	
MM D 14 DESC 15 DESC VOLT, FOLLO 16 DESC 17 DESC WITH STEEL AMEN CAMBER CAS PE 20 DESC 21 DESC 22	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, METWORK; NOWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT . HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC OF TYPE TERMINALS OF APPROVE H TERMINAL JUNCTION BOX SHA THE APPROVAL OF THE DIMENS! (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S GI POIE 8 MT RIPTION => PART NAME:CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => SUPPLY, INSTALLAT RECHNICAL SPECIFICATION. 55 inch LED TV RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMING TESTING CCTV SYS	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT, QUANTITY:12; DATA TRAN. MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG LATION OF WEATHER PROOF JU 12316-UNNAO LPG ND COMMISSIONING OF 12 WAY FOR TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE FOR MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FROW THE SUMMER OR SOLVE AND STATE OF THE SUMMER ON SOLVE INCH (FOR THE SUMER OR SOLVE INCH (ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PEI Each TLP EXD TYPE MULT CONSTRUCTION, IP FOR GROUP II A ANI JUNCTION BOX SHA LBE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF OR 2 P 1 SQ.MM ANI Each NUFACTURER:N/A; E Each ING OF HDD/NAS FOR EACH EACH EACH EACH ION OF CCTV VMS SLUMP Sum	6 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 11 R TENDER DOCUMENT. 23 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TO 10 II B, CCOE CMRI CERTIFII LL INCLUDE NECESSARY' ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT 1ARGE. 2 NO 1 1/2 INCH NP' 1 P 1 SQ.MM CABLE) NPT 15 QUIPMENT NAME:CCTV SY 40 OR STORAGE OF DATA FRO 2 ATTACHED. 42 GOFTWARE FOR CAMERAS 1	OMMUNICAT FIONED IN TE 995461 995461 995461 D EXPLOSION EMPERATURE ED AS PER IS- FERMINALS F FION BOX SE OF CABLES. OF (FOR 18 P 1 ENTRY. 75 TE YSTEM; EQUIL M CAMERA F 998734	09AAACH1 118B1ZA 09AAACH1 118B1ZA 109AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA PROOF JUNC' 6 CLASS T3, S' 2148 WITH LA' FOR SUITABLI ALL HAVE E FONTRACTOR SQ.MM CABL RMINALS (TE 09AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA	Yes A: BE Yes Yes TION BOX TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4 3). Yes CL:N/A; AS Yes Yes Yes Yes Yes	
MM D 14 DESC 15 DESC VOLT. FOLL 16 DESC VOLT. FOLL 17 DESC WITH STEEL NOTE STEEL	EPTH, CABLE ROUTE MARKER-G. NETWORK SWITCH, MANAGED, 8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH, MANAGED 12 PORT RIPTION => SWITCH, METWORK; NETWORK SWITCH, METWORK; NETWORK SWITCH, METWORK; NETHON => SWITCH, NETWORK; NETHON => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC TYPE TERMINALS OF APPROVE H TERMINAL JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6, P. 1 SQ.MM AND 4 PAIR 1 S GI POLE 8 MT RIPTION => PART NAME:CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION. 55 inch LED TV RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMING TESTING	ALVANIZED. 12316-UNNAO LPG NUMBER OF PORTS:8; APPLICATI 12316-UNNAO LPG PORT, QUANTITY:12; DATA TRAN, MODEL NUMBER:N/A; MANAGED 12316-UNNAO LPG LATION OF WEATHER PROOF JU 12316-UNNAO LPG ND COMMISSIONING OF 12 WAY FROM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR CONSOR OF THIS JUNCTION BOX FROM CABLE), 6 NOS 1/2 INCH (FROM CABLE), 6 NOS 1/2 INCH (FROM CABLE), 6 NOS I/2 INCH (FROM	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PEI Each TLP EXD TYPE MULT CONSTRUCTION, IP FOR GROUP II A ANI JUNCTION BOX SHA LBE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF OR 2 P 1 SQ.MM ANI Each NUFACTURER:N/A; E Each ING OF HDD/NAS FOR EACH EACH EACH EACH ION OF CCTV VMS SLUMP Sum	6 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 11 R TENDER DOCUMENT. 23 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TO 10 II B, CCOE CMRI CERTIFII LL INCLUDE NECESSARY' ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT 1ARGE. 2 NO 1 1/2 INCH NP' 1 P 1 SQ.MM CABLE) NPT 15 QUIPMENT NAME:CCTV SY 40 OR STORAGE OF DATA FRO 2 ATTACHED. 42 GOFTWARE FOR CAMERAS 1	OMMUNICAT FIONED IN TE 995461 995461 995461 D EXPLOSION EMPERATURE ED AS PER IS- FERMINALS F FION BOX SE OF CABLES. OF (FOR 18 P 1 ENTRY. 75 TE YSTEM; EQUIL M CAMERA F 998734	09AAACH1 118B1ZA 09AAACH1 118B1ZA 109AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA PROOF JUNC' 6 CLASS T3, S' 2148 WITH LA' FOR SUITABLI ALL HAVE E FONTRACTOR SQ.MM CABL RMINALS (TE 09AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA 09AAACH1 118B1ZA	Yes A: BE Yes Yes TION BOX TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4 3). Yes CL:N/A; AS Yes Yes Yes Yes Yes	

COMP	DESCRIPTION => IP/NETWORK CCTV; TYPE:DAY AND NIGHT FIXED CAMERA; RECORDING RESOLUTION:1920X1080 PIXELS HD; IMAGE COMPRESSION:H.264/MPEG-4, TRIPLE STREAM; FOCAL LENGTH OF LENS:2.8-12 MM; INGRESS PROTECTION:IP66; VIDEO FRAME RATE:25/30 FPS; NIGHT VISION:REQUIRED; CAMERA SHALL BE ONVIF COMPLIANT WITH POE								
24	FLP Enclosur Fixed Camera F12		Each	6		09AAACH1 118B1ZA	Yes		
INSTI CERTI CLASS	DESCRIPTION => PART NAME:FLAMEPROOF ENCLOSURE: PART MATERIAL:DIE CAST ALUMINUM ALLOY LM6; PARTY SHALL SUPPLY CIMFR(CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH) APPROVED FLAME PROOF ALUMINA ELECTRICAL ENCLOSURE WITH VALID TEST CERTIFICATES. ALSO PESO CERTIFICATION SHALL BE AVAILABLE; TECHNICAL SPECIFICATION: TYPE OF EX-PROTECTION:EEX-D TYPE, IS/IEC60079-1:2007, ZONE CLASSIFICATION:ZONE 1 AND ZONE 2; GAS GROUP:IIA, IIB, T6 IS/IEC60079-0:2004, INGRESS IP PROTECTION:IP66 IS/IEC60529-1:2001; PAINT:EPOXY POLYESTER POWDER COATING; EARTHLING:INTERNAL -01 NO. EXTERNAL -02 NOS.; CABLE ENTRY: AS PER REQUIRE; HARDWARE: STAINLESS STEEL								
25	Fixed camera motorized zoom2MP	12314-GORAKHPUR LPG	Each	3	85258020	09AAACH1 118B1ZA	Yes		
DESC	RIPTION => TYPE:HD IP FIXED CARMATION:2MP,WITH MOTORIZED	AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S	I/SONY/AXIS/PELCO HEET ATTACHED.	/VERINT/HONEYWELL; MC	DEL NUMBE	R:N/A; ADDIT	IONAL		
26	Indoor (Dome) 2MP	12314-GORAKHPUR LPG	Each	3	85258020	09AAACH1 118B1ZA	Yes		
	CRIPTION => TYPE:HD IP DOME CA		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND	MFZ LENS PIC	CKUP		
27	Fixed camera Motorized zoom 4K	12314-GORAKHPUR LPG	Each	1		09AAACH1 118B1ZA	Yes		
	RIPTION => TYPE:FIXED NON FLATIONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TIONS		
28	Fixed Camera FL50	12314-GORAKHPUR LPG	Each	8	85258090	09AAACH1 118B1ZA	Yes		
COMP	PRIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS	MERA; RECORDING S:12-50 MM; INGRESS	RESOLUTION:1920X1080 P S PROTECTION:1P66; VIDEC	IXELS HD; IM FRAME RAT	AGE E:25/ 30 FPS; N	NIGHT		
29	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12314-GORAKHPUR LPG	Meters	2500		09AAACH1 118B1ZA	Yes		
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS		
30	OPTICAL FIBER CABLE,SM,12 CORE	12314-GORAKHPUR LPG	Each	3000		09AAACH1 118B1ZA	Yes		
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	I/A; AS PER		
31	SPLY AND LAYG OF ARMOURED CAT6	12314-GORAKHPUR LPG	Meters	1500	995424	09AAACH1 118B1ZA	Yes		
	RIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER								
32	GI EARTHING WIRE 8SWG	12314-GORAKHPUR LPG	Meters	1000		09AAACH1 118B1ZA	Yes		
	RIPTION => PROVIDING AND FIX					ı			
33	SPLY&LAYG OF UNARMOURED CAT6	12314-GORAKHPUR LPG	Each	800	995424	09AAACH1 118B1ZA	Yes		
DESC CHAR	RIPTION => PROVIDING AND LAYGE)	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-		
34	CONST OF CABLE TRENCH	12314-GORAKHPUR LPG	Meters	1800	995433	09AAACH1 118B1ZA	Yes		
	RIPTION => UNDERGROUND-CAR EPTH, CABLE ROUTE MARKER-G		D FILLING, BRICK L	AYING, BACKFILLING ANI	COMPACTIC	N, 1800 MM V	VIDE, 1000		
35	NETWORK SWITCH,MANAGED,8 PORT	12314-GORAKHPUR LPG	Each	12	84733091	09AAACH1 118B1ZA	Yes		
DESC	RIPTION => NETWORK SWITCH;	NUMBER OF PORTS:8; APPLICATI	ON:OUTDOOR	1	1				
36	NETWORK SWITCH,MANAGED 12 PORT	12314-GORAKHPUR LPG	Set	6		09AAACH1 118B1ZA	Yes		
VOLT	RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; N OWED								
37	JUNCTION BOX	12314-GORAKHPUR LPG	Each	6	995461	09AAACH1 118B1ZA	Yes		
	RIPTION => SUPPLY AND INSTAL				l				
38	FLP JUNCTION BOX	12314-GORAKHPUR LPG	Each	18	995461	09AAACH1 118B1ZA	Yes		
WITH STEEL AMEN CLAM EART TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SH THE APPROVAL OF THE DIMENS! (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE D MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF	2 66 CLASS PROTECTION, TO DII B, CCOE CMRI CERTIFII ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURE ED AS PER IS - TERMINALS F CTION BOX SE OF CABLES. C I (FOR 18 P 1	E CLASS T3, S' 2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4		
39	GI Pole 8 MT	12314-GORAKHPUR LPG	Each	18		09AAACH1 118B1ZA	Yes		
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS		
40	HARD DISK DRIVE per TB cost	12314-GORAKHPUR LPG	Each	40		09AAACH1 118B1ZA	Yes		
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS		
41	55 inch LED TV	12314-GORAKHPUR LPG	Each	3	998734	09AAACH1 118B1ZA	Yes		
	RIPTION => SUPPLY AND INSTAL				1				
42	VIDEO MANAGEMENT SOFTWARE	12314-GORAKHPUR LPG	Each	42	998733	09AAACH1 118B1ZA	Yes		
DESC 43	RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING CCTV SYS	WARE: SUPPLY AND INSTALLAT 12314-GORAKHPUR LPG	ION OF CCTV VMS S Lump Sum	OFTWARE FOR CAMERAS 1	LICENSE.	09AAACH1 118B1ZA	Yes		

DESCRIPTION => INSTALLATION AND COMMISSIONING OF CCTV SYSTEM AND ASSOCIATED ACCESSORIES AS PER THE TERMS AND CONDITIONS MENTIONED IN THE TENDER ATTACHMENTS.									
44	Fixed Camera FL12	12660-PURNEA LPG	Each	12	85258090	10AAACH1 118B1ZR	Yes		
COMP	DESCRIPTION => IP/NETWORK CCTV; TYPE:DAY AND NIGHT FIXED CAMERA; RECORDING RESOLUTION:1920X1080 PIXELS HD; IMAGE COMPRESSION:H.264/MPEG-4, TRIPLE STREAM; FOCAL LENGTH OF LENS:2.8-12 MM; INGRESS PROTECTION:IP66; VIDEO FRAME RATE:25/30 FPS; NIGHT VISION:REQUIRED; CAMERA SHALL BE ONVIF COMPLIANT WITH POE								
45	FLP Enclosur Fixed Camera F12		Each	5		10AAACH1 118B1ZR	Yes		
INSTITE CERTICLES	FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	I PROOF ENCLOSURE; PART MATEI BARCH) APPROVED FLAME PROOI B; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600' INAL -01 NO. EXTERNAL -02 NOS.;	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; P	PLY CIMFR(CI ERTIFICATES. NE AINT:EPOXY	ALSO PESO		
46	Fixed camera motorized zoom2MP	12660-PURNEA LPG	Each	3	85258020	10AAACH1 118B1ZR	Yes		
		AMERA; MANUFACTURER:BOSCF ZOOM; AS PER SPECIFICATION S		/VERINT/HONEYWELL; MC	DEL NUMBEI	R:N/A; ADDITI	IONAL		
47	Indoor (Dome) 2MP	12660-PURNEA LPG	Each	3	85258020	10AAACH1 118B1ZR	Yes		
	RIPTION => TYPE:HD IP DOME C. CE; DETAILED SPECIFICATION SH	AMERA; MANUFACTURER:N/A; M	ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND		KUP		
48	Fixed camera Motorized zoom 4K		Each	1		10AAACH1 118B1ZR	Yes		
	RIPTION => TYPE:FIXED NON FL. IONED IN TENDER MUST BE FOL!	I AME PROOF 4K CAMERA; MANUF LOWED	FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS		IONS		
49	Fixed Camera FL50	12660-PURNEA LPG	Each	8	85258090	10AAACH1 118B1ZR	Yes		
COMP		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENG SONVIE COMPLIANT WITH POE				AGE	IIGHT		
50	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12660-PURNEA LPG	Meters	3500		10AAACH1 118B1ZR	Yes		
	RIPTION => SUPPLY OF THE FO	DLLOWING 1100 VOLTS COPPER FICATIONS OF THIS TENDER.SUPI			THED STEEL	ARMOURED	CABLES AS		
51	OPTICAL FIBER CABLE,SM,12 CORE	12660-PURNEA LPG	Each	3500		10AAACH1 118B1ZR	Yes		
	RIPTION => PART NAME:OFC CA	I BLE; PART NUMBER:N/A; MANUF	I ACTURER:N/A; EQU	I IPMENT NAME:CCTV SYST	EM; EQUIPME		I/A; AS PER		
52	ER DOCUMENT SPLY AND LAYG OF ARMOURED CAT6	12660-PURNEA LPG	Meters	2720	995424	10AAACH1 118B1ZR	Yes		
	RIPTION => SUPPLY AND LAYING	G OF CAT6 ARMOURED NETWORI				RING:GALVA			
53	GI EARTHING WIRE 8SWG	12660-PURNEA LPG	Meters	1200	0.83 MM0. APP	10AAACH1	Yes		
DESC	RIPTION => PROVIDING AND FIX	L ING 8 SWG DIA G.I. WIRE ON SUR	FACE OR IN RECESS	FOR LOOP EARTHING AS	REQUIRED.	118B1ZR			
54	SPLY&LAYG OF UNARMOURED CAT6	12660-PURNEA LPG	Each	600	995424	10AAACH1 118B1ZR	Yes		
DESC CHAR	RIPTION => PROVIDING AND LA	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO		ER-IN-		
55	CONST OF CABLE TRENCH	12660-PURNEA LPG	Meters	2000	995433	10AAACH1 118B1ZR	Yes		
	RIPTION => UNDERGROUND-CA EPTH, CABLE ROUTE MARKER-G	BLE TRENCH: EXCAVATION, SAN ALVANIZED.	D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO		VIDE, 1000		
56	NETWORK SWITCH,MANAGED,8 PORT	12660-PURNEA LPG	Each	12	84733091	10AAACH1 118B1ZR	Yes		
	RIPTION => NETWORK SWITCH;	NUMBER OF PORTS:8; APPLICATI							
57	JUNCTION BOX	12660-PURNEA LPG	Each	2	995461	10AAACH1 118B1ZR	Yes		
DESC 58	RIPTION => SUPPLY AND INSTAI FLP JUNCTION BOX	LLATION OF WEATHER PROOF JU 12660-PURNEA LPG	NCTION BOX AS PEI	R TENDER DOCUMENT.	995461	10AAACH1	Yes		
						118B1ZR			
WITH STEEL AMEN CLAM EARTI TAKE	TERMINALS WITH TOP AND BOT, HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE H TERMINAL, JUNCTION BOX SHATTE APPROVAL OF THE DIMENS	ND COMMISSIONING OF 12 WAY F TOM TYPE CABLE ENTRIES, LM 6 , NEOPRENE GASKET, SUITABLE F CTION OF ENGINEER-IN-CHARGE. ED MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO SQ.MM CABLE), 6 NOS 1/2 INCH (F	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CH	2 66 CLASS PROTECTION, TI DII B, CCOE CMRI CERTIFIE ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURE ED AS PER IS - TERMINALS F CTION BOX SH OF CABLES. C I (FOR 18 P 1	E CLASS T3, ST 2148 WITH LA FOR SUITABLE IALL HAVE EX CONTRACTOR SQ.MM CABLE	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4		
59	GI Pole 8 MT	12660-PURNEA LPG	Each	31		10AAACH1 118B1ZR	Yes		
	RIPTION => PART NAME:CAMER ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUII		L:N/A; AS		
60	HARD DISK DRIVE per TB cost	12660-PURNEA LPG	Each	70		10AAACH1 118B1ZR	Yes		
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	TON, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F		OF 90 DAYS		
61	55 inch LED TV	12660-PURNEA LPG	Each	2	998734	10AAACH1 118B1ZR	Yes		
DESC	RIPTION => SUPPLY AND INSTAI	LLATION OF 55 INCH LED TV AS P	ER SPECIFICATION	ATTACHED.					
62	VIDEO MANAGEMENT SOFTWARE	12660-PURNEA LPG	Each	38	998733	10AAACH1 118B1ZR	Yes		
DESC		TWARE: SUPPLY AND INSTALLAT	TION OF CCTV VMS S	OFTWARE FOR CAMERAS	LICENSE.	·			
63	INSTLN COMMNG TESTING	12660-PURNEA LPG	Lump Sum	1		10AAACH1 118B1ZR	Yes		

DESCRIPTION => INSTALLATION AND COMMISSIONING OF CCTV SYSTEM AND ASSOCIATED ACCESSORIES AS PER THE TERMS AND CONDITIONS MENTIONED IN THE TENDER ATTACHMENTS.								
64	Fixed Camera FL12	12659-PATNA LPG	Each	18	85258090	10AAACH1 118B1ZR	Yes	
DESCRIPTION => IP/ NETWORK CCTV; TYPE:DAY AND NIGHT FIXED CAMERA; RECORDING RESOLUTION:1920X1080 PIXELS HD; IMAGE COMPRESSION:H.264/MPEG-4, TRIPLE STREAM; FOCAL LENGTH OF LENS:2.8-12 MM; INGRESS PROTECTION:IP66; VIDEO FRAME RATE:25/30 FPS; NIGHT VISION:REQUIRED; CAMERA SHALL BE ONVIF COMPLIANT WITH POE								
65	PTZ CAMERA	12659-PATNA LPG	Each	1		10AAACH1 118B1ZR	Yes	
	CRIPTION => TYPE:PTZ NON FLAM NDER MUST BE FOLLOWED	MEPROOF CAMERA; MANUFACTU	RER:N/A; MODEL N	UMBER:N/A; IN ADDITION	TO THIS, SPEC	CIFICATIONS	MENTIONED	
66	FLP Enclosur Fixed Camera F12	12659-PATNA LPG	Each	11		10AAACH1 118B1ZR	Yes	
INSTI CERT CLAS	RIPTION => PART NAME:FLAMEI TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER	EARCH) APPROVED FLAME PROOF E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO	
67	Fixed camera motorized zoom2MP	12659-PATNA LPG	Each	2	85258020	10AAACH1 118B1ZR	Yes	
	CRIPTION => TYPE:HD IP FIXED CARMATION:2MP,WITH MOTORIZED			/VERINT/HONEYWELL; MC	DDEL NUMBE		IONAL	
68	Indoor (Dome) 2MP	12659-PATNA LPG	Each	4	85258020	10AAACH1 118B1ZR	Yes	
	TRIPTION => TYPE:HD IP DOME CA CE; DETAILED SPECIFICATION SH		IODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ION:IRF AND I		CKUP	
69	Fixed camera Motorized zoom 4K		Each	1		10AAACH1 118B1ZR	Yes	
	L CRIPTION => TYPE:FIXED NON FL. TONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS		TIONS	
70	Fixed Camera FL50	12659-PATNA LPG	Each	6	85258090	10AAACH1 118B1ZR	Yes	
COMF	RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT	
71	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12659-PATNA LPG	Meters	3750		10AAACH1 118B1ZR	Yes	
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS	
72	OPTICAL FIBER CABLE,SM,12 CORE	12659-PATNA LPG	Each	4000		10AAACH1 118B1ZR	Yes	
	CRIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	V/A; AS PER	
73	SPLY AND LAYG OF ARMOURED CAT6	12659-PATNA LPG	Meters	3800	995424	10AAACH1 118B1ZR	Yes	
	CRIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER							
74	GI EARTHING WIRE 8SWG	12659-PATNA LPG	Meters	1500		10AAACH1 118B1ZR	Yes	
	RIPTION => PROVIDING AND FIX SPLY&LAYG OF	ING 8 SWG DIA G.I. WIRE ON SUR 12659-PATNA LPG			REQUIRED. 995424	10AAACH1	Yes	
	UNARMOURED CAT6 CRIPTION => PROVIDING AND LAY					118B1ZR		
CHAR		12659-PATNA LPG	Meters	4000	995433	10AAACH1	Yes	
	CRIPTION => UNDERGROUND-CAI					118B1ZR		
	EPTH, CABLE ROUTE MARKER-G.		Each	18	84733091	10AAACH1	Yes	
	SWITCH,MANAGED,8 PORT PRIPTION => NETWORK SWITCH;				04733031	118B1ZR	103	
78	JUNCTION BOX	12659-PATNA LPG	Each	7	995461	10AAACH1 118B1ZR	Yes	
DESC	RIPTION => SUPPLY AND INSTAI	LATION OF WEATHER PROOF JU	NCTION BOX AS PEI	R TENDER DOCUMENT.		TIODIZK		
79	FLP JUNCTION BOX	12659-PATNA LPG	Each	12	995461	10AAACH1 118B1ZR	Yes	
WITH STEEL AMEN CLAM EART TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT LHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIRECTORY TO THE DIRECTORY TO THE MAND AS PER THE DIRECTORY THE APPROVAL OF THE DIMENS. (FOR 6, P. 1 SQ.MM AND 4 PAIR 1 SOLD FOR 8 MT	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE DD MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IPFOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF	P 66 CLASS PROTECTION, TO DII B, CCOE CMRI CERTIFII ALL INCLUDE NECESSARY A ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURE ED AS PER IS - TERMINALS F CTION BOX SE OF CABLES. C T (FOR 18 P 1	E CLASS T3, S' 2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4	
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	EQUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS	
81	HARD DISK DRIVE per TB cost	12659-PATNA LPG	Each	80		10AAACH1 118B1ZR	Yes	
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	TON, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS	
82	55 inch LED TV	12659-PATNA LPG	Each	2	998734	10AAACH1 118B1ZR	Yes	
DESC 83	RIPTION => SUPPLY AND INSTAIL VIDEO MANAGEMENT	LATION OF 55 INCH LED TV AS P 12659-PATNA LPG	ER SPECIFICATION .	ATTACHED. 38	998733	10AAACH1	Yes	
	SOFTWARE		1	1		118B1ZR	1	

DESCRIPTION => MANAGEMENT SOFTWARE: SUPPLY AND INSTALLATION OF CCTV VMS SOFTWARE FOR CAMERAS LICENSE.							
84	INSTLN COMMNG TESTING CCTV SYS	12659-PATNA LPG	Lump Sum	1		10AAACH1 118B1ZR	Yes
	CRIPTION => INSTALLATION AND TIONED IN THE TENDER ATTACHN		EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
85	Fixed Camera FL12	42663-	Each	13	85258090		Yes
COM	CRIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS	MERA; RECORDING S:2.8-12 MM; INGRES	RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO	IXELS HD; IM O FRAME RAT	AGE E:25/ 30 FPS; 1	NIGHT
86	FLP Enclosur Fixed Camera F12	42663-	Each	5			Yes
INSTI CERT CLAS	CRIPTION => PART NAME:FLAME TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	EARCH) APPROVED FLAME PROOF E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TON:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; P	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
POWI 87	DER COATING; EARTHLING:INTER Fixed camera motorized	RNAL -01 NO. EXTERNAL -02 NOS.; 42663-	CABLE ENTRY: AS	PER REQUIRE; HARDWARE	85258020	STEEL	Yes
DESC	zoom2MP CRIPTION => TYPE:HD IP FIXED CA	AMERA; MANUFACTURER:BOSCH	I/SONY/AXIS/PELCO			R:N/A; ADDIT	
INFO	RMATION:2MP,WITH MOTORIZED Indoor (Dome) 2MP	ZOOM; AS PER SPECIFICATION S 42663-	HEET ATTACHED. Each	3	85258020		Yes
	CRIPTION => TYPE:HD IP DOME CA			1-		MFZ LENS PIC	
	CE; DETAILED SPECIFICATION SH		le	· [_			lv.
89 DESC	Fixed camera Motorized zoom 4K CRIPTION => TYPE:FIXED NON FL		Each	1 DEL NUMBER:N/A: IN ADDI	TION TO THIS	S SPECIFICAT	Yes
	TIONED IN TENDER MUST BE FOLI		1	T	TION TO THIS	, SI ECIFICAT	IONS
90	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	42663-	Meters	1000	DITED CERT	ADMONDED	Yes
	CRIPTION => SUPPLY OF THE FO S 7098 PART-1 AND AS PER SPECI				THED STEEL	ARMOURED	CABLES AS
91	OPTICAL FIBER CABLE,SM,12 CORE	42663-	Each	1000			Yes
	CRIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPME	ENT MODEL:N	V/A; AS PER
92	SPLY AND LAYG OF ARMOURED CAT6	42663-	Meters	700	995424		Yes
	CRIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER						
93	GI EARTHING WIRE 8SWG	42663-	Meters	400			Yes
DESC 94	CRIPTION => PROVIDING AND FIX SPLY&LAYG OF	ING 8 SWG DIA G.I. WIRE ON SUR 42663-	FACE OR IN RECESS	FOR LOOP EARTHING AS 800	REQUIRED. 995424		Yes
34	UNARMOURED CAT6	42003-	Lacii	800	333424		163
DESC CHAR	CRIPTION => PROVIDING AND LATE	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
95	CONST OF CABLE TRENCH	42663-	Meters	750	995433		Yes
DESC	CRIPTION => UNDERGROUND-CADEPTH, CABLE ROUTE MARKER-G.	BLE TRENCH: EXCAVATION, SAN	D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO	N, 1800 MM V	VIDE, 1000
96	NETWORK SWITCH,MANAGED,8 PORT	42663-	Each	18	84733091		Yes
DESC	CRIPTION => NETWORK SWITCH;	NUMBER OF PORTS:8; APPLICATI	ON:OUTDOOR	1	1	1	
97	JUNCTION BOX	42663-	Each	2	995461		Yes
98	CRIPTION => SUPPLY AND INSTAI FLP JUNCTION BOX	LLATION OF WEATHER PROOF JU 42663-	Each	16	995461		Yes
WITH STEE AME CLAN EART TAKE	PRIPTION => SUPPLY, INSTALL AND TERMINALS WITH TOP AND BOT L HARDWARE, EARTHING BOLTS, NDMENTS AND AS PER THE DIRECTORY TO THE DIRECTORY TO THE DIMENS OF APPROVALUMENTS OF APPROVALUMENTS OF APPROVALUMENTS OF APPROVALUMENTS OF APPROVALUMENTS OF APPROVALUMENTS OF THE DIMENS OF THE APPROVAL OF THE DIMENS OF THE APPROVAL OF THE DIMENS OF THE APPROVAL OF THE DIMENS OF THE OFFICE OF THE DIMENS OF THE APPROVAL OF THE DIMENS OF THE APPROVAL OF THE DIMENS	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA J BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CH	166 CLASS PROTECTION, TI DII B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURE ED AS PER IS - TERMINALS F CTION BOX SH OF CABLES. C I (FOR 18 P 1	E CLASS T3, S' 2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
99	GI Pole 8 MT	42663-	Each	20			Yes
	CRIPTION => PART NAME:CAMER ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUII	PMENT MODE	EL:N/A; AS
100	HARD DISK DRIVE per TB cost	42663-	Each	50			Yes
	CRIPTION => SUPPLY, INSTALLAT ER TECHNICAL SPECIFICATION.	TON, TESTING AND COMMISSION	ING OF HDD/NAS FO	R STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
101	VIDEO MANAGEMENT SOFTWARE	42663-	Each	31	998733		Yes
DESC	CRIPTION => MANAGEMENT SOFT	TWARE: SUPPLY AND INSTALLAT	ION OF CCTV VMS S	OFTWARE FOR CAMERAS	LICENSE.		
102	INSTLN COMMNG TESTING CCTV SYS	42663-	Lump Sum	1			Yes
MEN	CRIPTION => INSTALLATION AND FIONED IN THE TENDER ATTACHM This is a second of the company of the	MENTS.	T	T	HE TERMS AN		
103	CAMC FOR CCTV SYSTEM PER YEAR	12316-UNNAO LPG	Year	5		09AAACH1 118B1ZA	Yes
	CRIPTION => CAMC FOR SURVEIL	i			FOR SUPPLI		Voc
104	CAMC FOR CCTV SYSTEM PER YEAR CRIPTION => CAMC FOR SURVEIL	12314-GORAKHPUR LPG	Year	DV OF WARPANTY DEDICE	EOD GIDDI I	09AAACH1 118B1ZA	Yes
105	CAMC FOR CCTV SYSTEM PER YEAR	12660-PURNEA LPG	Year	5	TOK SUPPLI	10AAACH1 118B1ZR	Yes
DESC	CRIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOL	FOR SUPPLI		1

106	CAMC FOR CCTV SYSTEM PER YEAR	12659-PATNA LPG	Year	5		10AAACH1 118B1ZR	Yes
	CRIPTION => CAMC FOR SURVEIL				FOR SUPPLI	ED SYSTEM.	1
107	CAMC FOR CCTV SYSTEM PER YEAR	42663-	Year	5			Yes
DESC	CRIPTION => CAMC FOR SURVEIL		E AMC AFTER EXPI	RY OF WARRANTY PERIOD	FOR SUPPLI		anadatan <i>u</i> Na
1	Fixed Camera FL12	Schedule 5 EAST ZONE 12623-JATNI LPG	Each	21	85258090	21AAACH1 118B1ZO	Yes
COMI	L CRIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BI	TREAM; FOCAL LENGTH OF LENS				IAGE	NIGHT
2	FLP Enclosur Fixed Camera F12		Each	7		21AAACH1 118B1ZO	Yes
INSTI CERT CLAS	PRIPTION => PART NAME:FLAME TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER	EARCH) APPROVED FLAME PROOF E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TON:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CI 079-1:2007, ZO 50529-1:2001; I	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
3	Fixed camera motorized zoom2MP	12623-JATNI LPG	Each	4	85258020	21AAACH1 118B1ZO	Yes
	CRIPTION => TYPE:HD IP FIXED C. RMATION:2MP,WITH MOTORIZED			/VERINT/HONEYWELL; MC	DEL NUMBE	R:N/A; ADDIT	IONAL
4	Indoor (Dome) 2MP	12623-JATNI LPG	Each	3	85258020	21AAACH1 118B1ZO	Yes
	CRIPTION => TYPE:HD IP DOME C.CE; DETAILED SPECIFICATION SH		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND	MFZ LENS PIC	CKUP
5	Fixed Camera FL50	12623-JATNI LPG	Each	10	85258090	21AAACH1 118B1ZO	Yes
COMI	CRIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BI	TREAM; FOCAL LENGTH OF LENS				IAGE	NIGHT
6	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12623-JATNI LPG	Meters	3750		21AAACH1 118B1ZO	Yes
	CRIPTION => SUPPLY OF THE FO S 7098 PART-1 AND AS PER SPECI				THED STEEL	ARMOURED	CABLES AS
7	OPTICAL FIBER CABLE,SM,12 CORE	12623-JATNI LPG	Each	4000		21AAACH1 118B1ZO	Yes
	CRIPTION => PART NAME:OFC CA PER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	J/A; AS PER
8	SPLY AND LAYG OF ARMOURED CAT6	12623-JATNI LPG	Meters	750	995424	21AAACH1 118B1ZO	Yes
	CRIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER						
9	GI EARTHING WIRE 8SWG	12623-JATNI LPG	Meters	1500	J.63 WIWIO. AT I	21AAACH1 118B1ZO	Yes
DESC	L CRIPTION => PROVIDING AND FIX	I IING 8 SWG DIA G.I. WIRE ON SUR	I FACE OR IN RECESS	FOR LOOP EARTHING AS	REQUIRED.	1100120	
10	SPLY&LAYG OF UNARMOURED CAT6	12623-JATNI LPG	Each	800	995424	21AAACH1 118B1ZO	Yes
DESC	CRIPTION => PROVIDING AND LA	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
11	CONST OF CABLE TRENCH	12623-JATNI LPG	Meters	4000	995433	21AAACH1 118B1ZO	Yes
	CRIPTION => UNDERGROUND-CAL DEPTH, CABLE ROUTE MARKER-G		D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO	ON, 1800 MM V	VIDE, 1000
12	NETWORK SWITCH.MANAGED.8 PORT	12623-JATNI LPG	Each	15	84733091	21AAACH1 118B1ZO	Yes
DESC	CRIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED	NUMBER OF PORTS:8; APPLICATI 12623-JATNI LPG	ON:OUTDOOR	4		21AAACH1	Yes
	12 PORT CRIPTION => SWITCH,NETWORK;						
FOLL	'AGE:N/A; MANUFACTURER:N/A; I OWED	,	, I	, 	1	1	
14	JUNCTION BOX	12623-JATNI LPG	Each	1	995461	21AAACH1 118B1ZO	Yes
DESC 15	CRIPTION => SUPPLY AND INSTAIN FLP JUNCTION BOX	LLATION OF WEATHER PROOF JU 12623-JATNI LPG	NCTION BOX AS PER	20 TENDER DOCUMENT.	995461	21AAACH1	Yes
DESC	CRIPTION => SUPPLY, INSTALL A	L ND COMMISSIONING OF 12 WAY F	L FLP EXD TYPE MULT	L I WAY FLAME PROOF AND	EXPLOSION	118B1ZO PROOF JUNC	TION BOX
WITH STEEL AMEN CLAM EART TAKE INCH	TERMINALS WITH TOP AND BOT L HARDWARE, EARTHING BOLTS, SUMENTS AND AS PER THE DIRECT PROPERTY THE DIRECT PROPERTY THE APPROVE HERMINAL. JUNCTION BOX SHUTHE APPROVAL OF THE DIMENS (FOR 6, P. 1 SQ.MM AND 4 PAIR 1.5).	TOM TYPE CABLE ENTRIES, LM 6 , NEOPRENE GASKET, SUITABLE I TIION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO SQ.MM CABLE), 6 NOS 1/2 INCH (F	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CH OR 2 P 1 SQ.MM AND	66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ' ALL JUNCTION BOX. JUNG S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP' D 1 P 1 SQ.MM CABLE) NPT	EMPERATURI ED AS PER IS TERMINALS I CTION BOX SI OF CABLES. O I (FOR 18 P 1	E CLASS T3, S' -2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABLE RMINALS (TE	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
16	GI Pole 8 MT	12623-JATNI LPG	Each	40		21AAACH1 118B1ZO	Yes
	CRIPTION => PART NAME:CAMER ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS
17	HARD DISK DRIVE per TB cost	12623-JATNI LPG	Each	100		21AAACH1 118B1ZO	Yes
	CRIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	TION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
18	55 inch LED TV	12623-JATNI LPG	Each	2	998734	21AAACH1 118B1ZO	Yes

DESC	RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION .	ATTACHED.			
19	VIDEO MANAGEMENT	12623-JATNI LPG	Each	49	998733	21AAACH1	Yes
DESC	SOFTWARE RIPTION => MANAGEMENT SOFT	WADE, CUIDDI V AND INCTALLAT	TON OF CCTV VMS S	COETWADE EOD CAMEDAS	LICENSE	118B1ZO	
20	INSTLN COMMNG TESTING	12623-JATNI LPG	Lump Sum	1	LICENSE.	21AAACH1	Yes
	CCTV SYS	12020 071111 27 0	Lump Gum	<u>'</u>		118B1ZO	100
	RIPTION => INSTALLATION AND IONED IN THE TENDER ATTACHN		EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
21	Fixed Camera FL12	12692-RAIPUR LPG	Each	25	85258090	22AAACH1 118B1ZM	Yes
DESC	RIPTION => IP/ NETWORK CCTV;	TYPE:DAY AND NIGHT FIXED CA	MERA; RECORDING	RESOLUTION:1920X1080 P	IXELS HD; IM	AGE	W.C.V.T.
	RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE		S:2.8-12 MM; INGRES	S PROTECTION:IP66; VIDEO) FRAME RAT	E:25/ 30 FPS; I	NIGHT
22	FLP Enclosur Fixed Camera F12	12692-RAIPUR LPG	Each	12		22AAACH1 118B1ZM	Yes
	RIPTION => PART NAME:FLAME						
CERTI CLASS	FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER	; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	YPE OF EX-PROTECT 79-0:2004, INGRESS I	TON:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	079-1:2007, ZO 0529-1:2001; P	NE 'AINT:EPOXY	
23	Fixed camera motorized zoom2MP	12692-RAIPUR LPG	Each	4	85258020	22AAACH1 118B1ZM	Yes
	RIPTION => TYPE:HD IP FIXED CAMATION:2MP.WITH MOTORIZED			/VERINT/HONEYWELL; MC	DEL NUMBER	R:N/A; ADDIT	IONAL
24	Indoor (Dome) 2MP	12692-RAIPUR LPG	Each	5	85258020	22AAACH1	Yes
						118B1ZM	
	RIPTION => TYPE:HD IP DOME CA CE; DETAILED SPECIFICATION SH		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	MFZ LENS PIC	CKUP
25	Fixed camera Motorized zoom 4K	12692-RAIPUR LPG	Each	1		22AAACH1 118B1ZM	Yes
	RIPTION => TYPE:FIXED NON FLATIONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TONS
26	Fixed Camera FL50	12692-RAIPUR LPG	Each	18	85258090	22AAACH1 118B1ZM	Yes
DESC	RIPTION => IP/ NETWORK CCTV;	TYPE:DAY AND NIGHT FIXED CA	MERA; RECORDING	RESOLUTION:1920X1080 P	IXELS HD; IM	AGE	
	RESSION:H.264/MPEG-4, TRIPLE Ś N:REQUIRED; CAMERA SHALL BE		S:12-50 MM; INGRESS	S PROTECTION:IP66; VIDEO	FRAME RATI	E:25/ 30 FPS; N	NIGHT
27	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12692-RAIPUR LPG	Meters	4800		22AAACH1 118B1ZM	Yes
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS
28	OPTICAL FIBER CABLE,SM,12 CORE	12692-RAIPUR LPG	Each	5200		22AAACH1 118B1ZM	Yes
DESC	RIPTION => PART NAME:OFC CA	L BLE; PART NUMBER:N/A; MANUF	L ACTURER:N/A; EQU	I IPMENT NAME:CCTV SYST	L EM; EQUIPME		J/A; AS PER
	ER DOCUMENT	<u> </u>		I			1
29	SPLY AND LAYG OF ARMOURED CAT6	12692-RAIPUR LPG	Meters	3800	995424	22AAACH1 118B1ZM	Yes
	RIPTION => SUPPLY AND LAYING URED3. CONDUCTOR DIAMETER						
30	GI EARTHING WIRE 8SWG	12692-RAIPUR LPG	Meters	1000	.05 1411410. 711 1	22AAACH1	Yes
						118B1ZM	
DESC 31	RIPTION => PROVIDING AND FIX SPLY&LAYG OF	ING 8 SWG DIA G.I. WIRE ON SUR 12692-RAIPUR LPG	FACE OR IN RECESS	900	REQUIRED. 995424	22AAACH1	Yes
31	UNARMOURED CAT6	12092-RAIPUR LPG	Each	900	995424	118B1ZM	res
DESC CHAR	RIPTION => PROVIDING AND LAY	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTION	N OF ENGINE	ER-IN-
32	CONST OF CABLE TRENCH	12692-RAIPUR LPG	Meters	3500	995433	22AAACH1	Yes
	RIPTION => UNDERGROUND-CAR		L D FILLING, BRICK L	l AYING, BACKFILLING AND	COMPACTIO	118B1ZM N, 1800 MM V	VIDE, 1000
33	EPTH, CABLE ROUTE MARKER-GA NETWORK	ALVANIZED. 12692-RAIPUR LPG	Each	15	84733091	22AAACH1	Yes
	SWITCH,MANAGED,8 PORT			-		118B1ZM	L
	RIPTION => NETWORK SWITCH;	· · · · · · · · · · · · · · · · · · ·				00446:::	lv.
34	NETWORK SWITCH,MANAGED 12 PORT	12692-RAIPUR LPG	Set	6		22AAACH1 118B1ZM	Yes
	RIPTION => SWITCH,NETWORK; I AGE:N/A; MANUFACTURER:N/A; I DWED						
35	JUNCTION BOX	12692-RAIPUR LPG	Each	8	995461	22AAACH1 118B1ZM	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF WEATHER PROOF JU	NCTION BOX AS PER	R TENDER DOCUMENT.			
36	FLP JUNCTION BOX	12692-RAIPUR LPG	Each	12	995461	22AAACH1 118B1ZM	Yes
WITH STEEL AMEN CLAM EARTI TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHATHE APPROVAL OF THE DIMENSI (FOR 6, P 1 SQ.MM AND 4 PAIR 1 SOL POLE 8 MT	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE DD MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CF	66 CLASS PROTECTION, TI DII B, CCOE CMRI CERTIFIE ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT IARGE. 2 NO 1 1/2 INCH NP	EMPERATURE ED AS PER IS - FERMINALS F TION BOX SH OF CABLES. C F (FOR 18 P 1	E CLASS T3, S' 2148 WITH LA OR SUITABLI IALL HAVE E ONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV SY	YSTEM; EQUII	PMENT MODE	EL:N/A; AS
38	HARD DISK DRIVE per TB cost	12692-RAIPUR LPG	Each	120		22AAACH1	Yes
I						118B1ZM	1

	DESCRIPTION => SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HDD/NAS FOR STORAGE OF DATA FROM CAMERA FOR A PERIOD OF 90 DAYS AS PER TECHNICAL SPECIFICATION.								
39	55 inch LED TV	12692-RAIPUR LPG	Each	2	998734	22AAACH1 118B1ZM	Yes		
DESC	RIPTION => SUPPLY AND INSTAL				1		ı		
40	VIDEO MANAGEMENT SOFTWARE	12692-RAIPUR LPG	Each	60	998733	22AAACH1 118B1ZM	Yes		
	RIPTION => MANAGEMENT SOFT				LICENSE.	000000014	V		
41 DESC	INSTLN COMMNG TESTING CCTV SYS RIPTION => INSTALLATION AND	12692-RAIPUR LPG	Lump Sum	1 ED ACCESCODIES AS DED T	THE TEDME AN	22AAACH1 118B1ZM	Yes		
	IONED IN THE TENDER ATTACHN		EM AND ASSOCIATI	ED ACCESSORIES AS PER 1	HE TEKMS AT	ND CONDITIO	NS		
42	Fixed Camera FL12	12657-PAHARPUR LPG	Each	9	85258090	19AAACH1 118B1Z9	Yes		
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT		
43	FLP Enclosur Fixed Camera F12	12657-PAHARPUR LPG	Each	5		19AAACH1 118B1Z9	Yes		
INSTITE CERTICLES	RIPTION => PART NAME:FLAMEF FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABL SIFICATION:ZONE I AND ZONE 2; ER COATING; EARTHLING:INTER	ARCH) APPROVED FLAME PROOI E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC6007	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	RICAL ENCLOSURE WITH V FION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO		
44	Indoor (Dome) 2MP	12657-PAHARPUR LPG	Each	2	85258020	19AAACH1 118B1Z9	Yes		
DESC DEVIC	RIPTION => TYPE:HD IP DOME CA E; DETAILED SPECIFICATION SH	AMERA; MANUFACTURER:N/A; M EET ATTACHED.	ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND	MFZ LENS PIC	KUP		
45	Fixed camera Motorized zoom 4K	12657-PAHARPUR LPG	Each	1		19AAACH1 118B1Z9	Yes		
	RIPTION => TYPE:FIXED NON FLA IONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TONS		
46	Fixed Camera FL50	12657-PAHARPUR LPG	Each	6	85258090	19AAACH1 118B1Z9	Yes		
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT		
47	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12657-PAHARPUR LPG	Meters	2000		19AAACH1 118B1Z9	Yes		
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS		
48	OPTICAL FIBER CABLE,SM,12 CORE	12657-PAHARPUR LPG	Each	2500		19AAACH1 118B1Z9	Yes		
	RIPTION => PART NAME:OFC CAL ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI		I/A; AS PER		
49	SPLY AND LAYG OF ARMOURED CAT6	12657-PAHARPUR LPG	Meters	750	995424	19AAACH1 118B1Z9	Yes		
	RIPTION => SUPPLY AND LAYING URED3. CONDUCTOR DIAMETER								
50	GI EARTHING WIRE 8SWG	12657-PAHARPUR LPG	Meters	500).63 WIWIO. AI I		Yes		
						118B1Z9			
	RIPTION => PROVIDING AND FIX						l.,		
51	SPLY&LAYG OF UNARMOURED CAT6	12657-PAHARPUR LPG	Each	1000	995424	19AAACH1 118B1Z9	Yes		
DESC CHAR	RIPTION => PROVIDING AND LA' GE)	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E)	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-		
52	CONST OF CABLE TRENCH	12657-PAHARPUR LPG	Meters	2500	995433	19AAACH1 118B1Z9	Yes		
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G		D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO	N, 1800 MM V	VIDE, 1000		
53	NETWORK SWITCH,MANAGED,8 PORT	12657-PAHARPUR LPG	Each	15	84733091	19AAACH1 118B1Z9	Yes		
	RIPTION => NETWORK SWITCH;	· ·		1.		40446	\ <u>\</u>		
54	NETWORK SWITCH,MANAGED 12 PORT	12657-PAHARPUR LPG	Set	4		19AAACH1 118B1Z9	Yes		
	RIPTION => SWITCH,NETWORK; NAGE:N/A; MANUFACTURER:N/A; NOWED								
55	JUNCTION BOX	12657-PAHARPUR LPG	Each	3	995461	19AAACH1 118B1Z9	Yes		
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF WEATHER PROOF JU	NCTION BOX AS PEI	R TENDER DOCUMENT.					
56	FLP JUNCTION BOX	12657-PAHARPUR LPG	Each	17	995461	19AAACH1 118B1Z9	Yes		
WITH STEEL AMEN CLAM EARTI TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIREC TYPE TERMINALS OF APPROVE H TERMINAL, JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6,P 1 SQ.MM AND 4 PAIR 1 S GI POLE 8 MT	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE F TION OF ENGINEER-IN-CHARGE. D MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CF	P 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE ALL INCLUDE NECESSARY 'I A ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP'	EMPERATURE ED AS PER IS - TERMINALS F CTION BOX SF OF CABLES. C I (FOR 18 P 1	E CLASS T3, S' 2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4		
	RIPTION => PART NAME;CAMER.	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	EQUIPMENT NAME:CCTV S	YSTEM; EQUI	I .	EL:N/A; AS		
58	ENDER DOCUMENT HARD DISK DRIVE per TB cost	12657-PAHARPUR LPG	Each	20		19AAACH1 118B1 <i>7</i> 9	Yes		

	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	TON, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
59	55 inch LED TV	12657-PAHARPUR LPG	Each	2	998734	19AAACH1 118B1Z9	Yes
		LLATION OF 55 INCH LED TV AS P				1	1
60	VIDEO MANAGEMENT SOFTWARE	12657-PAHARPUR LPG	Each	29	998733	19AAACH1 118B1Z9	Yes
61	RIPTION => MANAGEMENT SOFT	FWARE: SUPPLY AND INSTALLAT 12657-PAHARPUR LPG	Lump Sum	1	LICENSE.	19AAACH1	Yes
DESC	CCTV SYS RIPTION => INSTALLATION AND	COMMISSIONING OF CCTV SYST	EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AT	118B1Z9	NS
	TONED IN THE TENDER ATTACHN Fixed Camera FL12		T	11	85258090		Yes
		PANAGARH	Each			19AAACH1 118B1Z9	res
COMP		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENG ONVIF COMPLIANT WITH POE					NIGHT
63	FLP Enclosur Fixed Camera F12	12707-LPG BOTTLING PLANT PANAGARH	Each	3		19AAACH1 118B1Z9	Yes
INSTI CERTI CLASS	TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	PROOF ENCLOSURE; PART MATEI BARCH) APPROVED FLAME PROOI 5; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600° RNAL -01 NO. EXTERNAL -02 NOS.;	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
64	Fixed camera motorized zoom2MP	12707-LPG BOTTLING PLANT PANAGARH	Each	2	85258020	19AAACH1 118B1Z9	Yes
		AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S.		/VERINT/HONEYWELL; MC	DEL NUMBE	R:N/A; ADDIT	IONAL
65	Indoor (Dome) 2MP	12707-LPG BOTTLING PLANT PANAGARH	Each	2	85258020	19AAACH1 118B1Z9	Yes
	RIPTION => TYPE:HD IP DOME C CE; DETAILED SPECIFICATION SH	AMERA; MANUFACTURER:N/A; M EET ATTACHED.	ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND	MFZ LENS PIC	CKUP
66	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12707-LPG BOTTLING PLANT PANAGARH	Meters	1100		19AAACH1 118B1Z9	Yes
		LLOWING 1100 VOLTS COPPER FICATIONS OF THIS TENDER.SUPI			THED STEEL	ARMOURED	CABLES AS
67	OPTICAL FIBER CABLE,SM,12 CORE	12707-LPG BOTTLING PLANT PANAGARH	Each Each	1200		19AAACH1 118B1Z9	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	V/A; AS PER
68	SPLY AND LAYG OF ARMOURED CAT6	12707-LPG BOTTLING PLANT PANAGARH	Meters	610	995424	19AAACH1 118B1Z9	Yes
		G OF CAT6 ARMOURED NETWORI ::23 AWG4. TEMPERATURE RATIN					
69	GI EARTHING WIRE 8SWG	12707-LPG BOTTLING PLANT PANAGARH	Meters	305		19AAACH1 118B1Z9	Yes
		ING 8 SWG DIA G.I. WIRE ON SUR					
70	SPLY&LAYG OF UNARMOURED CAT6	12707-LPG BOTTLING PLANT PANAGARH	Each	30	995424	19AAACH1 118B1Z9	Yes
DESC CHAR		YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
71	CONST OF CABLE TRENCH	12707-LPG BOTTLING PLANT PANAGARH	Meters	50	995433	19AAACH1 118B1Z9	Yes
	RIPTION => UNDERGROUND-CAL EPTH, CABLE ROUTE MARKER-G	BLE TRENCH: EXCAVATION, SAN ALVANIZED.	D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIC	ON, 1800 MM V	VIDE, 1000
72	NETWORK SWITCH,MANAGED,8 PORT	12707-LPG BOTTLING PLANT PANAGARH	Each	9	84733091	19AAACH1 118B1Z9	Yes
		NUMBER OF PORTS:8; APPLICATI	1	1	ī	1	1
73	JUNCTION BOX	12707-LPG BOTTLING PLANT PANAGARH	Each	12	995461	19AAACH1 118B1Z9	Yes
DESC 74	RIPTION => SUPPLY AND INSTAI FLP JUNCTION BOX	LLATION OF WEATHER PROOF JU 12707-LPG BOTTLING PLANT	NCTION BOX AS PER	R TENDER DOCUMENT. 8	995461	19AAACH1	Yes
		PANAGARH				118B1Z9	
WITH STEEL AMEN CLAM EART TAKE	TERMINALS WITH TOP AND BOT LHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENS	ND COMMISSIONING OF 12 WAY F TOM TYPE CABLE ENTRIES, LM 6 , NEOPRENE GASKET, SUITABLE F CTION OF ENGINEER-IN-CHARGE. ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRC SQ.MM CABLE), 6 NOS 1/2 INCH (F	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF	P 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE LLL INCLUDE NECESSARY A ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURED AS PER IS - TERMINALS F CTION BOX SF OF CABLES. C I (FOR 18 P 1	E CLASS T3, S' -2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
75	GI Pole 8 MT	12707-LPG BOTTLING PLANT PANAGARH	Each	10		19AAACH1 118B1Z9	Yes
	PRIPTION => PART NAME:CAMER ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	EQUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS
76	HARD DISK DRIVE per TB cost	12707-LPG BOTTLING PLANT PANAGARH	Each	20		19AAACH1 118B1Z9	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	TON, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
77	VIDEO MANAGEMENT SOFTWARE	12707-LPG BOTTLING PLANT PANAGARH	Each	48	998733	19AAACH1 118B1Z9	Yes
		TWARE: SUPPLY AND INSTALLAT			LICENSE.	100000011	Vac
78	INSTLN COMMNG TESTING CCTV SYS	12707-LPG BOTTLING PLANT PANAGARH	Lump Sum	1		19AAACH1 118B1Z9	Yes
	RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN	COMMISSIONING OF CCTV SYST MENTS.	EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS A	ND CONDITIO	NS

79	Fixed Camera FL12	12655-JAMSHEDPUR LPG	Each	9	85258090	20AAACH1 118B1ZQ	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
80	FLP Enclosur Fixed Camera F12	12655-JAMSHEDPUR LPG	Each	4		20AAACH1 118B1ZQ	Yes
INSTIT CERTI CLASS	RIPTION => PART NAME:FLAMER FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2; PER COATING; EARTHLING:INTER	ARCH) APPROVED FLAME PROOF F; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 0529-1:2001; P	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
81	Fixed camera motorized zoom2MP	12655-JAMSHEDPUR LPG	Each	2	85258020	20AAACH1 118B1ZQ	Yes
	RIPTION => TYPE:HD IP FIXED CA MATION:2MP,WITH MOTORIZED			/VERINT/HONEYWELL; MC	DEL NUMBEI	R:N/A; ADDIT	IONAL
82	Indoor (Dome) 2MP	12655-JAMSHEDPUR LPG	Each	2	85258020	20AAACH1 118B1ZQ	Yes
	RIPTION => TYPE:HD IP DOME CA CE; DETAILED SPECIFICATION SH		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	MFZ LENS PIC	CKUP
83	Fixed camera Motorized zoom 4K	12655-JAMSHEDPUR LPG	Each	2		20AAACH1 118B1ZQ	Yes
	RIPTION => TYPE:FIXED NON FLA IONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TONS
84	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12655-JAMSHEDPUR LPG	Meters	1200		20AAACH1 118B1ZQ	Yes
	RIPTION => SUPPLY OF THE FO 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS
85	OPTICAL FIBER CABLE,SM,12 CORE	12655-JAMSHEDPUR LPG	Each	1200		20AAACH1 118B1ZQ	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPME	ENT MODEL:N	J/A; AS PER
86	SPLY AND LAYG OF ARMOURED CAT6	12655-JAMSHEDPUR LPG	Meters	1000	995424	20AAACH1 118B1ZQ	Yes
	RIPTION => SUPPLY AND LAYING URED3. CONDUCTOR DIAMETER						
87	GI EARTHING WIRE 8SWG	12655-JAMSHEDPUR LPG	Meters	500		20AAACH1 118B1ZQ	Yes
	RIPTION => PROVIDING AND FIX					2004 4 4 6144	
	SPLY&LAYG OF UNARMOURED CAT6	12655-JAMSHEDPUR LPG	Each	400	995424	20AAACH1 118B1ZQ	Yes
CHAR	,		,	`	ı		1
89	CONST OF CABLE TRENCH	12655-JAMSHEDPUR LPG	Meters	1200	995433	20AAACH1 118B1ZQ	Yes
	RIPTION => UNDERGROUND-CAR EPTH, CABLE ROUTE MARKER-G.		D FILLING, BRICK L	AYING, BACKFILLING AND	ı	ON, 1800 MM V	
	NETWORK SWITCH,MANAGED,8 PORT	12655-JAMSHEDPUR LPG	Each	10	84733091	20AAACH1 118B1ZQ	Yes
DESC	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH;			4	84733091	118B1ZQ	Yes
DESC.	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; M	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT,QUANTITY:12; DATA TRAN	ON:OUTDOOR Set SFER RATE:N/A; DA'	4 TA LINK PROTOCOL:N/A; C	OMMUNICAT	20AAACH1 118B1ZQ TION MODE:N	Yes
DESC.	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; M	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT,QUANTITY:12; DATA TRAN	ON:OUTDOOR Set SFER RATE:N/A; DA'	4 TA LINK PROTOCOL:N/A; C	OMMUNICAT	20AAACH1 118B1ZQ TION MODE:N	Yes
DESC 91 DESC VOLTA FOLLO 92 DESC	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; N WED JUNCTION BOX RIPTION => SUPPLY AND INSTAL	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT,QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED 12655-JAMSHEDPUR LPG LATION OF WEATHER PROOF JU	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PEI	4 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 1 R TENDER DOCUMENT.	OMMUNICAT FIONED IN TE	20AAACH1 118B1ZQ 20ON MODE:N. ENDER MUST 20AAACH1 118B1ZQ	Yes /A; BE Yes
DESC 91 DESC VOLTA FOLLO 92 DESC 93	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; N DWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT, QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED 12655-JAMSHEDPUR LPG LATION OF WEATHER PROOF JU 12655-JAMSHEDPUR LPG	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PEI	4 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 1 R TENDER DOCUMENT.	OMMUNICAT FIONED IN TE 995461	20AAACH1 118B1ZQ TON MODE:N, NDER MUST 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ	Yes A: BE Yes Yes
DESC 91 DESC VOLTA FOLLO 92 DESC WITH STEEL AMEN CLAM EARTI TAKE	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; N WED JUNCTION BOX RIPTION => SUPPLY AND INSTAL	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT, QUANTITY: 12; DATA TRAN MODEL NUMBER: N/A; MANAGED 12655-JAMSHEDPUR LPG LATION OF WEATHER PROOF JU 12655-JAMSHEDPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I CTION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BL COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRE	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PEI Each FLP EXD TYPE MULTONSTRUCTION, IP FOR GROUP II A ANI JUNCTION BOX SHAL BE PROVIDED FOR BUSINESS SHALL BE PROVIDED FOR CONSTRUCTION LINK MENGINEER-IN-CH	4 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 1 R TENDER DOCUMENT. 6 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI 01 IB, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT 14ARGE. 2 NO 1 1/2 INCH NP	OMMUNICAT FIONED IN TE 995461 995461 DEXPLOSION EMPERATURE ED AS PER IS- FERMINALS F TITION BOX SF OF CABLES. C () (FOR 18 P I	20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ PROOF JUNC E CLASS T3, S' E 2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	Yes Yes Yes Yes Yes Yes TION BOX FAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
DESC 91 DESC VOLTA FOLLO 92 DESC WITH STEEL AMEN CLAM EARTI TAKE	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; N DWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT THARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE H TERMINAL, JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT, QUANTITY: 12; DATA TRAN MODEL NUMBER: N/A; MANAGED 12655-JAMSHEDPUR LPG LATION OF WEATHER PROOF JU 12655-JAMSHEDPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I CTION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BL COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRE	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PEI Each FLP EXD TYPE MULTONSTRUCTION, IP FOR GROUP II A ANI JUNCTION BOX SHAL BE PROVIDED FOR BUSINESS SHALL BE PROVIDED FOR CONSTRUCTION LINK MENGINEER-IN-CH	4 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 1 R TENDER DOCUMENT. 6 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI 01 IB, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT 14ARGE. 2 NO 1 1/2 INCH NP	OMMUNICAT FIONED IN TE 995461 995461 DEXPLOSION EMPERATURE ED AS PER IS- FERMINALS F TITION BOX SF OF CABLES. C () (FOR 18 P I	20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ PROOF JUNC E CLASS T3, S' E 2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	Yes Yes Yes Yes Yes Yes TION BOX FAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
DESC 91 DESC VOLTA FOLLC 92 DESC 93 DESC WITH STEEL AMEN CLAME CLAME EARTI TAKE INCH (194 DESC	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; N DWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT THARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIRECT P TYPE TERMINALS OF APPROVE H TERMINAL, JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6, P. 1 SQ.MM AND 4 PAIR 1.5)	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT, QUANTITY: 12; DATA TRAN MODEL NUMBER: N/A; MANAGED 12655-JAMSHEDPUR LPG LATION OF WEATHER PROOF JU 12655-JAMSHEDPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE 1 TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREQUIM CABLE), 6 NOS 1/2 INCH (F	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TO Each NCTION BOX AS PEI Each FLP EXD TYPE MULTICONSTRUCTION, IP FOR GROUP II A ANI JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CION 2 P 1 SQ.MM ANI Each	4 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 1 R TENDER DOCUMENT. 6 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI DII B, CCOE CMRI CERTIFIE LIL INCLUDE NECESSARY' ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP 1 P 1 SQ.MM CABLE) NPT 6	995461 995461 995461 0 EXPLOSION EMPERATURE FOR AS PER IS-TION BOX SFOR CABLES OF CABLES OF CABLES.	20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ PROOF JUNC E CLASS T3, S' 22148 WITH LA' GR SUITABLI HALL HAVE E SOLTRACTOR SQLMM CABL RMINALS (TE 20AAACH1 118B1ZQ	Yes Yes Yes Yes Yes TION BOX FAINLESS ATEST E ENTRIES. XTERNAL SHALL ES, 4 NO 3/4 Yes
DESC 91 DESC VOLTA FOLLC 92 DESC 93 DESC WITH STEEL AMEN CLAME CLAME EARTI TAKE INCH (194 DESC	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; N DWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT . HARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIREC TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6, P. 1 SQ.MM AND 4 PAIR 1 S GI POIE 8 MT RIPTION => PART NAME:CAMER.	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT, QUANTITY: 12; DATA TRAN MODEL NUMBER: N/A; MANAGED 12655-JAMSHEDPUR LPG LATION OF WEATHER PROOF JU 12655-JAMSHEDPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE 1 TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREQUIM CABLE), 6 NOS 1/2 INCH (F	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TO Each NCTION BOX AS PEI Each FLP EXD TYPE MULTICONSTRUCTION, IP FOR GROUP II A ANI JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CION 2 P 1 SQ.MM ANI Each	4 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 1 R TENDER DOCUMENT. 6 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI DII B, CCOE CMRI CERTIFIE LIL INCLUDE NECESSARY' ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP 1 P 1 SQ.MM CABLE) NPT 6	995461 995461 995461 0 EXPLOSION EMPERATURE FOR AS PER IS-TION BOX SFOR CABLES OF CABLES OF CABLES.	20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ PROOF JUNC E CLASS T3, S' 22148 WITH LA' GR SUITABLI HALL HAVE E SOLTRACTOR SQLMM CABL RMINALS (TE 20AAACH1 118B1ZQ	Yes Yes Yes Yes Yes TION BOX FAINLESS ATEST E ENTRIES. XTERNAL SHALL ES, 4 NO 3/4 Yes
DESC. 91 DESC. 92 DESC. 93 DESC. WITH STEEL AMEN CLAM EARTI TAKE INCH (94 DESC. 95 DESC.	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; N)WED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT . HARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIREC TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI (FOR 6,P 1 SQ.MM AND 4 PAIR 1 S GI POIE 8 MT RIPTION => PART NAME:CAMER. ENDER DOCUMENT	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT, QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED 12655-JAMSHEDPUR LPG LATION OF WEATHER PROOF JU 12655-JAMSHEDPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FROM CABLE), 6 NOS 1/2 INCH (F) 12655-JAMSHEDPUR LPG A POLE; PART NUMBER:N/A; MAN	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PEI Each TLP EXD TYPE MULT CONSTRUCTION, IP OR GROUP II A ANI JUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF OR 2 P I SQ.MM ANI Each NUFACTURER:N/A; E	TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 1 R TENDER DOCUMENT. 6 CI WAY FLAME PROOF AND 6 CLASS PROTECTION, TO 10 II B, CCOE CMRI CERTIFII 1.LL INCLUDE NECESSARY 1.ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT 1.ARGE. 2 NO 1 1/2 INCH NP 1 P 1 SQ.MM CABLE) NPT 6 QUIPMENT NAME:CCTV SY 10	OMMUNICAT FIONED IN TE 995461 995461 D EXPLOSION EMPERATURE ED AS PER IS - TERMINALS F TERMINALS F TOOR 18 P 1 ENTRY. 75 TE	20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ PROOF JUNC' E CLASS T3, 5' 2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL ERMINALS (TE 20AAACH1 118B1ZQ PMENT MODE	Yes Yes Yes Yes TION BOX TAINLESS ATEST E ENTRIES. XTERNAL E), 4 NO 3/4 3). Yes EL:N/A; AS
DESC. 91 DESC. 92 DESC. 93 DESC. WITH STEEL AMEN CLAM EARTI TAKE INCH (94 DESC. 95 DESC.	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; N DWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT THE DIMENTS AND AS PER THE DIRECT P TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI FOR 6,P 1 SQ.MM AND 4 PAIR 1 S GI POIE 8 MT RIPTION => PART NAME:CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => SUPPLY, INSTALLAT	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT, QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED 12655-JAMSHEDPUR LPG LATION OF WEATHER PROOF JU 12655-JAMSHEDPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FROM CABLE), 6 NOS 1/2 INCH (F) 12655-JAMSHEDPUR LPG A POLE; PART NUMBER:N/A; MAN	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PEI Each TLP EXD TYPE MULT CONSTRUCTION, IP OR GROUP II A ANI JUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF OR 2 P I SQ.MM ANI Each NUFACTURER:N/A; E	TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 1 R TENDER DOCUMENT. 6 CI WAY FLAME PROOF AND 6 CLASS PROTECTION, TO 10 II B, CCOE CMRI CERTIFII 1.LL INCLUDE NECESSARY 1.ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT 1.ARGE. 2 NO 1 1/2 INCH NP 1 P 1 SQ.MM CABLE) NPT 6 QUIPMENT NAME:CCTV SY 10	OMMUNICAT FIONED IN TE 995461 995461 D EXPLOSION EMPERATURE ED AS PER IS - TERMINALS F TERMINALS F TOOR 18 P 1 ENTRY. 75 TE	20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ PROOF JUNC' E CLASS T3, 5' 2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL ERMINALS (TE 20AAACH1 118B1ZQ PMENT MODE	Yes Yes Yes Yes TION BOX TAINLESS ATEST E ENTRIES. XTERNAL E), 4 NO 3/4 3). Yes EL:N/A; AS
DESC VOLTA FOLLO 92 DESC WITH STEEL AMEN CLAM EARTI TAKE INCH (94 DESC PER TI 95 DESC AS PEI 96 DESC AS PEI 96	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; NAGE:N/A; MANUFACTURER:N/A; NOWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT THARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIRECT P TYPE TERMINALS OF APPROVE HERMINALS JUNCTION BOX SHA THE APPROVAL OF THE DIMENS (FOR 6,P 1 SQ.MM AND 4 PAIR 1 SENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => PART NAME:CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION. 55 inch LED TV RIPTION => SUPPLY AND INSTAL	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT, QUANTITY: 12; DATA TRAN MODEL NUMBER:N/A; MANAGED 12655-JAMSHEDPUR LPG LATION OF WEATHER PROOF JU 12655-JAMSHEDPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BLE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRE QUIM CABLE), 6 NOS 1/2 INCH (F) 12655-JAMSHEDPUR LPG A POLE; PART NUMBER:N/A; MAN 12655-JAMSHEDPUR LPG ION, TESTING AND COMMISSION 12655-JAMSHEDPUR LPG LATION OF 55 INCH LED TV AS P	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO	4 TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 1 R TENDER DOCUMENT. 6 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI 01 IB, CCOE CMRI CERTIFIE LLI INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT 14 RGE. 2 NO 1 1/2 INCH NP 1 P 1 SQ.MM CABLE) NPT 6 1 QUIPMENT NAME:CCTV S' 10 DR STORAGE OF DATA FRO 1	OMMUNICAT FIONED IN TE 995461 995461 D EXPLOSION EMPERATURE ED AS PER IS - FICH ON BOX SE FICH ON BOX SE FICH ON BOX SE FICH OF CABLES. CO FICH OF	20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ PROOF JUNC E CLASS T3, S' 2148 WITH LAFOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL RMINALS (TB 20AAACH1 118B1ZQ PMENT MODE 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ	Yes Yes Yes Yes Yes Yes TION BOX FAINLESS ATEST E ENTRIES. XTERNAL E), 4 NO 3/4 B). Yes EL:N/A; AS Yes OF 90 DAYS Yes
DESC 91 DESC VOLTA FOLLO 92 DESC WITH STEEL AMEN CLAMEN CLAMEN EARTH TAKE INCH (94 DESC PER TI 95 DESC AS PEI 96 DESC	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; N)WED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT . HARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIREC TYPE TERMINALS OF APPROVE H TERMINAL JUNCTION BOX SH THE APPROVAL OF THE DIMENSI (FOR 6,P 1 SQ.MM AND 4 PAIR 1 S GI POIE 8 MT RIPTION => PART NAME:CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION. 55 inch LED TV RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT, QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED 12655-JAMSHEDPUR LPG LATION OF WEATHER PROOF JU 12655-JAMSHEDPUR LPG NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE DE MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREQ.MM CABLE), 6 NOS 1/2 INCH (F) 12655-JAMSHEDPUR LPG A POLE; PART NUMBER:N/A; MAN 12655-JAMSHEDPUR LPG ION, TESTING AND COMMISSION 12655-JAMSHEDPUR LPG LATION OF 55 INCH LED TV AS P	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PEI Each FLP EXD TYPE MULT CONSTRUCTION, IF FOR GROUP II A ANI JUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CF OR 2 P 1 SQ.MM ANI Each UUFACTURER:N/A; E Each Each Each Each Each Each Each	TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 1 R TENDER DOCUMENT. 6 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ' ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP D 1 P 1 SQ.MM CABLE) NPT 6 EQUIPMENT NAME:CCTV S' 10 DR STORAGE OF DATA FRO 1 ATTACHED. 26	OMMUNICAT FIONED IN TE 995461 995461 DEXPLOSION EMPERATURE ED AS PER IS- FERMINALS F TERMINALS F TON BOX SF OF CABLES. C F (FOR 18 P 1 ENTRY. 75 TE YSTEM; EQUIL M CAMERA F 998734	20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ PROOF JUNC'E CLASS T3, S' 2148 WITH LA'COR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABLERMINALS (TE) 20AAACH1 118B1ZQ PMENT MODE 20AAACH1 118B1ZQ 20AAACH1 20AAACH1 20AAACH1 20AAACH1 20AAACH1 20AAACH1 20AAACH1	Yes A; BE Yes Yes Yes Yes Yes Yes Yes Ye
DESC 91 DESC VOLTA FOLLC 92 DESC 93 DESC WITH STEEL AMEN CLAME CLAME EARTI TAKE INCH (94 DESC PER TI 95 DESC AS PEI 96 DESC 97	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; N DWED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT . HARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIRECT HARDWARE, EARTHING BOLTS, TOWN AND AS PER THE DIRECT HERMINALS OF APPROVE HERMINAL JUNCTION BOX SHATTED HERMINAL JUNCTION BOX SHATTED TERMINAL SOFT HE DIMENSI (FOR 6, P. 1 SQ.MM AND 4 PAIR 1 ST GI POLE 8 MT RIPTION => PART NAME:CAMER. ENDER DOCUMENT HARD DISK DRIVE PER TB COST RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION. 55 inch LED TV RIPTION => SUPPLY AND INSTAL VIDEO MANAGEMENT SOFTWARE RIPTION => MANAGEMENT SOFT INSTLN COMMING TESTING	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT, QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED 12655-JAMSHEDPUR LPG LATION OF WEATHER PROOF JU 12655-JAMSHEDPUR LPG NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE DE MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FREQ.MM CABLE), 6 NOS 1/2 INCH (F) 12655-JAMSHEDPUR LPG A POLE; PART NUMBER:N/A; MAN 12655-JAMSHEDPUR LPG ION, TESTING AND COMMISSION 12655-JAMSHEDPUR LPG LATION OF 55 INCH LED TV AS P	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PEI Each FLP EXD TYPE MULT CONSTRUCTION, IF FOR GROUP II A ANI JUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CF OR 2 P 1 SQ.MM ANI Each UUFACTURER:N/A; E Each Each Each Each Each Each Each	TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 1 R TENDER DOCUMENT. 6 TI WAY FLAME PROOF AND 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ' ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP D 1 P 1 SQ.MM CABLE) NPT 6 EQUIPMENT NAME:CCTV S' 10 DR STORAGE OF DATA FRO 1 ATTACHED. 26	OMMUNICAT FIONED IN TE 995461 995461 DEXPLOSION EMPERATURE ED AS PER IS- FERMINALS F TERMINALS F TON BOX SF OF CABLES. C F (FOR 18 P 1 ENTRY. 75 TE YSTEM; EQUIL M CAMERA F 998734	20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ PROOF JUNC' E CLASS T3, 5' 2148 WITH LAFOR SUITABLI ALL HAVE E CONTRACTOR SQ.MM CABL EMINALS (TE 20AAACH1 118B1ZQ PMENT MODE 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ	Yes Yes Yes Yes Yes Yes TION BOX FAINLESS ATEST E ENTRIES. XTERNAL E), 4 NO 3/4 B). Yes EL:N/A; AS Yes OF 90 DAYS Yes
DESC 91 DESC VOLTA FOLLO 92 DESC 93 DESC WITH STEEL AMEN CLAM EARTH TAKE INCH (94 DESC PER TI 95 DESC AS PEI 96 DESC 97 DESC	SWITCH,MANAGED,8 PORT RIPTION => NETWORK SWITCH; I NETWORK SWITCH,MANAGED 12 PORT RIPTION => SWITCH,NETWORK; I AGE:N/A; MANUFACTURER:N/A; N)WED JUNCTION BOX RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT I HARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIREC IN TERMINALS OF APPROVE HITERMINAL JUNCTION BOX SHATHE APPROVAL OF THE DIMENSI (FOR 6,P 1 SQ.MM AND 4 PAIR 1 STATE APPROVAL OF THE DIMENSI (FOR 6,P 1 SQ.MM AND 4 PAIR	NUMBER OF PORTS:8; APPLICATI 12655-JAMSHEDPUR LPG PORT, QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED 12655-JAMSHEDPUR LPG LATION OF WEATHER PROOF JU 12655-JAMSHEDPUR LPG ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FROM CABLE), 6 NOS 1/2 INCH (F) 12655-JAMSHEDPUR LPG A POLE; PART NUMBER:N/A; MAN 12655-JAMSHEDPUR LPG ION, TESTING AND COMMISSION 12655-JAMSHEDPUR LPG LATION OF 55 INCH LED TV AS P 12655-JAMSHEDPUR LPG WARE: SUPPLY AND INSTALLAT 12655-JAMSHEDPUR LPG	ON:OUTDOOR Set SFER RATE:N/A; DA', IN ADDITION TO TI Each NCTION BOX AS PEI Each TLP EXD TYPE MULT CONSTRUCTION, IP OR GROUP II A ANI JUNCTION BOX SHA LBE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF OR 2 P 1 SQ.MM ANI Each IUFACTURER:N/A; E Each Each Each EACH EACH EACH ION OF HDD/NAS FOR EACH EACH ION OF CCTV VMS SAL Lump Sum	TA LINK PROTOCOL:N/A; CHIS, SPECIFICATIONS MEN' 1 R TENDER DOCUMENT. 6 TI WAY FLAME PROOF AND 166 CLASS PROTECTION, TI 10 II B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY' ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT' HARGE. 2 NO 1 1/2 INCH NP' 1 P 1 SQ.MM CABLE) NPT 6 QUIPMENT NAME:CCTV S' 10 DR STORAGE OF DATA FRO 1 ATTACHED. 26 GOFTWARE FOR CAMERAS 1	OMMUNICAT FIONED IN TE 995461 995461 995461 D EXPLOSION EMPERATURE ED AS PER IS - FERMINALS F TOON BOX SH OF CABLES. OF (FOR 18 P 1 ENTRY. 75 TE YSTEM; EQUIL M CAMERA F 998734	20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ PROOF JUNC' 6 CLASS T3, S' 2148 WITH LA' FOR SUITABLI ALL HAVE E CONTRACTOR SQ.MM CABL RMINALS (TE 20AAACH1 118B1ZQ PMENT MODE 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ 20AAACH1 118B1ZQ	Yes A: BE Yes Yes Yes TION BOX TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4 S). Yes CL:N/A; AS Yes Yes Yes Yes Yes

99	CAMC FOR CCTV SYSTEM PER YEAR	12623-JATNI LPG	Year	5		21AAACH1 118B1ZO	Yes
DESC	RIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOI	FOR SUPPLI	ED SYSTEM.	
100	CAMC FOR CCTV SYSTEM PER YEAR	12692-RAIPUR LPG	Year	5		22AAACH1 118B1ZM	Yes
DESC	RIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOI	FOR SUPPLI	ED SYSTEM.	
101	CAMC FOR CCTV SYSTEM PER YEAR	12657-PAHARPUR LPG	Year	5		19AAACH1 118B1Z9	Yes
DESC	RIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOI	FOR SUPPLI	ED SYSTEM.	
102	CAMC FOR CCTV SYSTEM PER YEAR	12707-LPG BOTTLING PLANT PANAGARH	Year	5		19AAACH1 118B1Z9	Yes
DESC	RIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOR	FOR SUPPLI	ED SYSTEM.	
103	CAMC FOR CCTV SYSTEM PER YEAR	12655-JAMSHEDPUR LPG	Year	5		20AAACH1 118B1ZQ	Yes
DESC	RIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOR	FOR SUPPLI	ED SYSTEM.	
		Schedule 6 WEST ZONE	T	T.	ı		anadatory: No
1	Fixed Camera FL12	12402-Hazarwadi LPG plant	Each	23	85258090	27AAACH1 118B1ZC	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS E ONVIF COMPLIANT WITH POE		S PROTECTION:IP66; VIDEO			NIGHT
2	FLP Enclosur Fixed Camera F12	12402-Hazarwadi LPG plant	Each	8		27AAACH1 118B1ZC	Yes
INSTI CERTI CLASS	RIPTION => PART NAME:FLAMEI FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2; DER COATING; EARTHLING:INTER	ARCH) APPROVED FLAME PROOI E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600°	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
3	Indoor (Dome) 2MP	12402-Hazarwadi LPG plant	Each	2	85258020	27AAACH1 118B1ZC	Yes
	RIPTION => TYPE:HD IP DOME CA CE; DETAILED SPECIFICATION SH		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND	MFZ LENS PIC	CKUP
4	Fixed camera Motorized zoom 4K	12402-Hazarwadi LPG plant	Each	2		27AAACH1 118B1ZC	Yes
	RIPTION => TYPE:FIXED NON FL.		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TONS
5	TONED IN TENDER MUST BE FOLI Fixed Camera FL50	12402-Hazarwadi LPG plant	Each	6	85258090	27AAACH1 118B1ZC	Yes
COMP	L PRIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS				IAGE	NIGHT
6	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12402-Hazarwadi LPG plant	Meters	3200		27AAACH1 118B1ZC	Yes
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECII				THED STEEL		CABLES AS
7	OPTICAL FIBER CABLE,SM,12 CORE	12402-Hazarwadi LPG plant	Each	4000		27AAACH1 118B1ZC	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPME		I/A; AS PER
8	SPLY AND LAYG OF ARMOURED CAT6	12402-Hazarwadi LPG plant	Meters	3000	995424	27AAACH1 118B1ZC	Yes
	RIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER						
9	GI EARTHING WIRE 8SWG	12402-Hazarwadi LPG plant	Meters	2500		27AAACH1 118B1ZC	Yes
DESC 10	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR 12402-Hazarwadi LPG plant	FACE OR IN RECESS	FOR LOOP EARTHING AS 1500	REQUIRED. 995424	27AAACH1	Yes
	UNARMOURED CAT6	·				118B1ZC	
DESC CHAR	RIPTION => PROVIDING AND LA' GE)	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E)	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
11	CONST OF CABLE TRENCH	12402-Hazarwadi LPG plant	Meters	4500	995433	27AAACH1 118B1ZC	Yes
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G.		D FILLING, BRICK L	AYING, BACKFILLING ANI	COMPACTIC	ON, 1800 MM V	VIDE, 1000
12	NETWORK SWITCH,MANAGED,8 PORT	12402-Hazarwadi LPG plant	Each	10	84733091	27AAACH1 118B1ZC	Yes
DESC	RIPTION => NETWORK SWITCH;	NUMBER OF PORTS:8: APPLICATI	ON:OUTDOOR			102.20	
13	NETWORK SWITCH, MANAGED 12 PORT	12402-Hazarwadi LPG plant	Set	2		27AAACH1 118B1ZC	Yes
	RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; NOWED						
14	JUNCTION BOX	12402-Hazarwadi LPG plant	Each	7	995461	27AAACH1 118B1ZC	Yes
DESC	RIPTION => SUPPLY AND INSTAI	LATION OF WEATHER PROOF JU	NCTION BOX AS PEI	R TENDER DOCUMENT.			
15	FLP JUNCTION BOX	12402-Hazarwadi LPG plant	Each	21	995461	27AAACH1 118B1ZC	Yes
WITH STEEL AMEN CLAM EART TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL JUNCTION BOX SH THE APPROVAL OF THE DIMENS (FOR 6, P. 1 SQ.MM AND 4 PAIR 1.5	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE DD MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IP FOR GROUP II A ANI JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CF	P 66 CLASS PROTECTION, TO DII B, CCOE CMRI CERTIFII ALL INCLUDE NECESSARY A ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURED AS PER IS - TERMINALS F CTION BOX SF OF CABLES. C I (FOR 18 P 1	E CLASS T3, S' -2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL . SHALL E), 4 NO 3/4

16	GI Pole 8 MT	12402-Hazarwadi LPG plant	Each	20		27AAACH1 118B1ZC	Yes
	CRIPTION => PART NAME:CAMER CENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAI	NUFACTURER:N/A; E	EQUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS
17	HARD DISK DRIVE per TB cost	12402-Hazarwadi LPG plant	Each	50		27AAACH1 118B1ZC	Yes
	CRIPTION => SUPPLY, INSTALLAT OR TECHNICAL SPECIFICATION.	TON, TESTING AND COMMISSION	NING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA I	FOR A PERIOD	OF 90 DAYS
18	55 inch LED TV	12402-Hazarwadi LPG plant	Each	2	998734	27AAACH1 118B1ZC	Yes
	CRIPTION => SUPPLY AND INSTAI		1			1	I
19	VIDEO MANAGEMENT SOFTWARE	12402-Hazarwadi LPG plant	Each	47	998733	27AAACH1 118B1ZC	Yes
DESC 20	RIPTION => MANAGEMENT SOFT		1	SOFTWARE FOR CAMERAS	LICENSE.	27AAACH1	Yes
	CCTV SYS	12402-Hazarwadi LPG plant	Lump Sum			118B1ZC	
	CRIPTION => INSTALLATION AND TIONED IN THE TENDER ATTACH!		TEM AND ASSOCIAT	ED ACCESSORIES AS PER T	THE TERMS A	ND CONDITIO	NS
21	Fixed Camera FL12	12408-SOLAPUR-LPG	Each	15	85258090	27AAACH1 118B1ZC	Yes
COMF	RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BI	TREAM; FOCAL LENGTH OF LEN					NIGHT
22	FLP Enclosur Fixed Camera F12	12408-SOLAPUR-LPG	Each	7		27AAACH1 118B1ZC	Yes
INSTI CERT CLAS	RIPTION => PART NAME:FLAME! TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	EARCH) APPROVED FLAME PROO E; TECHNICAL SPECIFICATION: T GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 179-0:2004, INGRESS I	RICAL ENCLOSURE WITH V FION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CI 079-1:2007, ZC 50529-1:2001; I	ERTIFICATES. INE PAINT:EPOXY	ALSO PESO
23	DER COATING; EARTHLING:INTER	12408-SOLAPUR-LPG	Each	PER REQUIRE; HARDWARE 2	85258020	27AAACH1	Yes
DESC	zoom2MP CRIPTION => TYPE:HD IP FIXED C.	 AMERA+ MANUFACTURER+ROSCI	H/SONY/AXIS/PFI CC	/ //VERINT/HONEYWELL: MO	DEL NUMBE	118B1ZC R·N/A· ADDIT	IONAL
INFOR	RMATION:2MP,WITH MOTORIZED	ZOOM; AS PER SPECIFICATION S	HEET ATTACHED.			<u> </u>	
24	Indoor (Dome) 2MP	12408-SOLAPUR-LPG	Each	3	85258020	27AAACH1 118B1ZC	Yes
	CRIPTION => TYPE:HD IP DOME C. CE; DETAILED SPECIFICATION SH		IODEL NUMBER:N/A	; ADDITIONAL INFORMAT	ION:IRF AND	MFZ LENS PIC	CKUP
25	Fixed camera Motorized zoom 4K	12408-SOLAPUR-LPG	Each	5		27AAACH1 118B1ZC	Yes
	CRIPTION => TYPE:FIXED NON FL TIONED IN TENDER MUST BE FOL		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THI	S, SPECIFICAT	TIONS
26	Fixed Camera FL50	12408-SOLAPUR-LPG	Each	4	85258090	27AAACH1 118B1ZC	Yes
COMF	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BI	TREAM; FOCAL LENGTH OF LEN					NIGHT
27	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12408-SOLAPUR-LPG	Meters	2950		27AAACH1 118B1ZC	Yes
	CRIPTION => SUPPLY OF THE FO S 7098 PART-1 AND AS PER SPECT				THED STEEL	ARMOURED	CABLES AS
28	OPTICAL FIBER CABLE,SM,12 CORE	12408-SOLAPUR-LPG	Each	3170		27AAACH1 118B1ZC	Yes
	CRIPTION => PART NAME:OFC CA	I BLE; PART NUMBER:N/A; MANUF	FACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPM	•	J/A; AS PER
29	ER DOCUMENT SPLY AND LAYG OF	12408-SOLAPUR-LPG	Meters	800	995424	27AAACH1	Yes
DESC	ARMOURED CAT6 CRIPTION => SUPPLY AND LAYING	L G OF CAT6 ARMOURED NETWOR	L K CABLE1. INNER JA	L ACKET:POLYVINYL CHLOR	IDE2. ARMOU	118B1ZC JRING:GALVA	NIZED IRON
ARMO 30	OURED3. CONDUCTOR DIAMETER GI EARTHING WIRE 8SWG	::23 AWG4. TEMPERATURE RATIN 12408-SOLAPUR-LPG	NG:-200 TO 600 C5. TH	HICKNESS OUTER JACKET:().85 MM6. API	PROVED MAK 27AAACH1	E. Yes
						118B1ZC	103
DESC 31	CRIPTION => PROVIDING AND FIX SPLY&LAYG OF	ING 8 SWG DIA G.I. WIRE ON SUF 12408-SOLAPUR-LPG	RFACE OR IN RECESS Each	1300 S FOR LOOP EARTHING AS	REQUIRED. 995424	27AAACH1	Yes
	UNARMOURED CAT6 CRIPTION => PROVIDING AND LA					118B1ZC	
CHAR	(GE)		`	1		1	1
32	CONST OF CABLE TRENCH	12408-SOLAPUR-LPG	Meters	3880	995433	27AAACH1 118B1ZC	Yes
	CRIPTION => UNDERGROUND-CA DEPTH, CABLE ROUTE MARKER-G		ID FILLING, BRICK L	AYING, BACKFILLING ANI	COMPACTIO	ON, 1800 MM V	VIDE, 1000
33	NETWORK SWITCH,MANAGED,8 PORT	12408-SOLAPUR-LPG	Each	11	84733091	27AAACH1 118B1ZC	Yes
DESC 34	RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED		ION:OUTDOOR Set	5		27AAACH1	Yes
	12 PORT RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A;						
	OWED JUNCTION BOX	12408-SOLAPUR-LPG	Each	1	995461	27AAACH1	Yes
					39040 I	118B1ZC	162
DESC 36	FLP JUNCTION BOX	LATION OF WEATHER PROOF JU 12408-SOLAPUR-LPG	Each	R TENDER DOCUMENT. 27	995461	27AAACH1 118B1ZC	Yes
	I .	I .	1	ı	I .	1.100120	1

WITH STEEL AMEN CLAM EARTI TAKE	TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENSI	ND COMMISSIONING OF 12 WAY F TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE F TION OF ENGINEER-IN-CHARGE I D MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR ONS OF THIS JUNCTION BOX FRC Q.MM CABLE), 6 NOS 1/2 INCH (F	CONSTRUCTION, IP FOR GROUP II A AND IUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINKS OM ENGINEER-IN-CH	66 CLASS PROTECTION, TI II B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ' ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT ' (ARGE. 2 NO 1 1/2 INCH NP)	EMPERATURE ED AS PER IS - FERMINALS F CTION BOX SH OF CABLES. C F (FOR 18 P 1	E CLASS T3, ST 2148 WITH LA FOR SUITABLE HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
37	GI Pole 8 MT	12408-SOLAPUR-LPG	Each	21		27AAACH1 118B1ZC	Yes
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	IUFACTURER:N/A; E	QUIPMENT NAME:CCTV SY	YSTEM; EQUII	PMENT MODE	EL:N/A; AS
38	HARD DISK DRIVE per TB cost	12408-SOLAPUR-LPG	Each	50		27AAACH1 118B1ZC	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	R STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
39	55 inch LED TV	12408-SOLAPUR-LPG	Each	1	998734	27AAACH1 118B1ZC	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION A	ATTACHED.			
40	VIDEO MANAGEMENT SOFTWARE	12408-SOLAPUR-LPG	Each	48	998733	27AAACH1 118B1ZC	Yes
		WARE: SUPPLY AND INSTALLAT		OFTWARE FOR CAMERAS	LICENSE.		l.,
41	INSTLN COMMNG TESTING CCTV SYS	12408-SOLAPUR-LPG	Lump Sum	1		27AAACH1 118B1ZC	Yes
	RIPTION => INSTALLATION AND IONED IN THE TENDER ATTACHN	COMMISSIONING OF CCTV SYST	EM AND ASSOCIATE	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
42	Fixed Camera FL12	12471-CHANDRAPUR LPG (STP 0414)	Each	9	85258090	27AAACH1 118B1ZC	Yes
COMP	RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS ONVIF COMPLIANT WITH POE	MERA; RECORDING 5:2.8-12 MM; INGRES	RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO	IXELS HD; IM O FRAME RAT	AGE E:25/30 FPS; 1	NIGHT
43	FLP Enclosur Fixed Camera F12	12471-CHANDRAPUR LPG (STP 0414)	Each	3		27AAACH1 118B1ZC	Yes
INSTIT CERTI CLASS	FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	PROOF ENCLOSURE; PART MATER ARCH) APPROVED FLAME PROOF I; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC6007 NAL -01 NO. EXTERNAL -02 NOS.:	F ALUMINA ELECTR PPE OF EX-PROTECT 79-0:2004, INGRESS II	ICAL ENCLOSURE WITH V. ION:EEX-D TYPE, IS/IEC600 PPROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 0529-1:2001; P	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
44	Fixed camera motorized zoom2MP	12471-CHANDRAPUR LPG (STP 0414)	Each	3	85258020	27AAACH1 118B1ZC	Yes
		AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION SI		VERINT/HONEYWELL; MC	DEL NUMBEI	R:N/A; ADDITI	IONAL
45	Indoor (Dome) 2MP	12471-CHANDRAPUR LPG (STP 0414)		2	85258020	27AAACH1 118B1ZC	Yes
	RIPTION => TYPE:HD IP DOME CATE; DETAILED SPECIFICATION SH	AMERA; MANUFACTURER:N/A; M	ODEL NUMBER:N/A;	ADDITIONAL INFORMATI	ON:IRF AND I		CKUP
46	Fixed camera Motorized zoom 4K	12471-CHANDRAPUR LPG (STP 0414)	Each	1		27AAACH1 118B1ZC	Yes
	RIPTION => TYPE:FIXED NON FLA	AME PROOF 4K CAMERA; MANUF LOWED	ACTURER:N/A; MOD	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TIONS
47	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12471-CHANDRAPUR LPG (STP 0414)	Meters	2200		27AAACH1 118B1ZC	Yes
		LLOWING 1100 VOLTS COPPER FICATIONS OF THIS TENDER.SUPP			THED STEEL	ARMOURED	CABLES AS
48	OPTICAL FIBER CABLE,SM,12 CORE	12471-CHANDRAPUR LPG (STP 0414)	Each	2500		27AAACH1 118B1ZC	Yes
	RIPTION => PART NAME:OFC CA	BLE; PART NUMBER:N/A; MANUF.	ACTURER:N/A; EQUI	PMENT NAME:CCTV SYST	EM; EQUIPMI		I/A; AS PER
49	ER DOCUMENT SPLY AND LAYG OF ARMOURED CAT6	12471-CHANDRAPUR LPG (STP 0414)	Meters	600	995424	27AAACH1 118B1ZC	Yes
	RIPTION => SUPPLY AND LAYING	G OF CAT6 ARMOURED NETWORK				RING:GALVA	
ARMC 50	URED3. CONDUCTOR DIAMETER SPLY&LAYG OF	:23 AWG4. TEMPERATURE RATIN 12471-CHANDRAPUR LPG	G:-200 TO 600 C5. TH Each	ICKNESS OUTER JACKET:0 1000	995424	ROVED MAKI 27AAACH1	Yes
	UNARMOURED CAT6	(STP 0414) YING AMP CAT 6 CABLE FOR LAN				118B1ZC	
CHAR		12471-CHANDRAPUR LPG	Meters	1000	995433	27AAACH1	Yes
DESC		(STP 0414) BLE TRENCH: EXCAVATION, SAN				118B1ZC	VIDE, 1000
MM D	EPTH, CABLE ROUTE MARKER-G. NETWORK	ALVANIZED. 12471-CHANDRAPUR LPG	Fach	7	94722004	27444041	Von
	SWITCH,MANAGED,8 PORT	(STP 0414)	Each		84733091	27AAACH1 118B1ZC	Yes
DESC 53	RIPTION => NETWORK SWITCH; I NETWORK SWITCH,MANAGED	NUMBER OF PORTS:8; APPLICATION 12471-CHANDRAPUR LPG	ON:OUTDOOR Set	4		27AAACH1	Yes
	12 PORT	(STP 0414) PORT,QUANTITY:12; DATA TRANS			OMMUNICAT	118B1ZC	
VOLT. FOLLO	AGE:N/A; MANUFACTURER:N/A; N DWED	MODEL NUMBER:N/A; MANAGED,	IN ADDITION TO TH	HIS, SPECIFICATIONS MEN	ΓΙΟΝΕD IN TE	NDER MUST I	
54	JUNCTION BOX	12471-CHANDRAPUR LPG (STP 0414)	Each	3	995461	27AAACH1 118B1ZC	Yes
DESC 55	RIPTION => SUPPLY AND INSTAL FLP JUNCTION BOX	LATION OF WEATHER PROOF JUI 12471-CHANDRAPUR LPG (STP 0414)	NCTION BOX AS PER Each	TENDER DOCUMENT. 3	995461	27AAACH1	Yes

		ND COMMISSIONING OF 12 WAY I					
STEEL	L HARDWARE, EARTHING BOLTS,	TOM TYPE CABLE ENTRIES, LM 6 , NEOPRENE GASKET, SUITABLE I CTION OF ENGINEER-IN-CHARGE	FOR GROUP II A ANI	II B, CCOE CMRI CERTÍFII	ED AS PER IS -	-2148 WITH LA	ATEST
CLAN	IP TYPE TERMINALS OF APPROVE	ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR	L BE PROVIDED FOR	ALL JUNCTION BOX. JUNG	CTION BOX SE	HALL HAVE E	XTERNAL
TAKE	THE APPROVAL OF THE DIMENS	IONS OF THIS JUNCTION BOX FRO SQ.MM CABLE), 6 NOS 1/2 INCH (F	OM ENGINEER-IN-CH	HARGE. 2 NO 1 1/2 INCH NP	Γ (FOR 18 P 1	SQ.MM CABL	E), 4 NO 3/4
56	GI Pole 8 MT	12471-CHANDRAPUR LPG	Each	12		27AAACH1 118B1ZC	Yes
		(STP 0414) A POLE; PART NUMBER:N/A; MAN	<u> </u> 	L QUIPMENT NAME:CCTV S	L YSTEM; EQUI	•	EL:N/A; AS
PER T	ENDER DOCUMENT HARD DISK DRIVE per TB cost	12471-CHANDRAPUR LPG	Each	30		27AAACH1	Yes
	·	(STP 0414) TON, TESTING AND COMMISSION			M CAMEDA I	118B1ZC	
AS PE	R TECHNICAL SPECIFICATION.	· T	1	T	1		
58	55 inch LED TV	12471-CHANDRAPUR LPG (STP 0414)	Each	1	998734	27AAACH1 118B1ZC	Yes
DESC 59	RIPTION => SUPPLY AND INSTAI VIDEO MANAGEMENT	LLATION OF 55 INCH LED TV AS P 12471-CHANDRAPUR LPG	ER SPECIFICATION .	ATTACHED. 26	998733	27AAACH1	Yes
	SOFTWARE	(STP 0414)				118B1ZC	103
60	INSTLN COMMNG TESTING	FWARE: SUPPLY AND INSTALLAT 12471-CHANDRAPUR LPG	Lump Sum	1	LICENSE.	27AAACH1	Yes
DESC	CCTV SYS	(STP 0414) COMMISSIONING OF CCTV SYST	FM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AT	118B1ZC	NS
MENT	TONED IN THE TENDER ATTACH	MENTS.	T	T	1		
61	Fixed Camera FL12	12539-Mahul LPG Terminal (BDU) (STP	Each	7	85258090	27AAACH1 118B1ZC	Yes
COME		, TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LEN E ONVIF COMPLIANT WITH POE					NIGHT
62	FLP Enclosur Fixed Camera F12	12539-Mahul LPG Terminal (BDU) (STP	Each	4		27AAACH1 118B1ZC	Yes
INSTI	TUTE OF MINING AND FUEL RESE	PROOF ENCLOSURE; PART MATEI EARCH) APPROVED FLAME PROO	F ALUMINA ELECTR	ICAL ENCLOSURE WITH V	ALID TEST CI	ERTIFICATES.	
CLAS	SIFICATION: ZONE 1 AND ZONE 2;	E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600' RNAL -01 NO. EXTERNAL -02 NOS.;	79-0:2004, INGRESS I	P PROTECTION: IP66 IS/IEC6	50529-1:2001; F	PAINT:EPOXY	POLYESTER
63	Fixed camera motorized zoom2MP	12539-Mahul LPG Terminal (BDU) (STP	Each	2	85258020	27AAACH1 118B1ZC	Yes
		AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S		/VERINT/HONEYWELL; MC	DDEL NUMBE	R:N/A; ADDIT	IONAL
64	Indoor (Dome) 2MP	12539-Mahul LPG Terminal	Each	3	85258020	27AAACH1	Yes
		(BDU) (STP AMERA; MANUFACTURER:N/A; M	<u> </u> ODEL NUMBER:N/A	 ADDITIONAL INFORMATI	ON:IRF AND	118B1ZC MFZ LENS PIC	CKUP
DEVIO	CE; DETAILED SPECIFICATION SH 3CORE 4SQ MM	EET ATTACHED. 12539-Mahul LPG Terminal	Meters	1400		27AAACH1	Yes
	CBL,ARM,1.1KV,CU,	(BDU) (STP DLLOWING 1100 VOLTS COPPER			THED STEEL	118B1ZC	CADIES AS
PER IS	S 7098 PART-1 AND AS PER SPECI	FICATIONS OF THIS TENDER.SUPI	PLY CABLE SIZE: 3 C	CX 4 SQMM	THED STEEL	1	
66	OPTICAL FIBER CABLE,SM,12 CORE	12539-Mahul LPG Terminal (BDU) (STP	Each	1400		27AAACH1 118B1ZC	Yes
	RIPTION => PART NAME:OFC CA ER DOCUMENT	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	I/A; AS PER
67	SPLY AND LAYG OF ARMOURED CAT6	12539-Mahul LPG Terminal (BDU) (STP	Meters	800	995424	27AAACH1 118B1ZC	Yes
		G OF CAT6 ARMOURED NETWOR! 2:23 AWG4. TEMPERATURE RATIN					
68	GI EARTHING WIRE 8SWG	12539-Mahul LPG Terminal (BDU) (STP	Meters	650		27AAACH1 118B1ZC	Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR		FOR LOOP EARTHING AS	REQUIRED.		
69	CONST OF CABLE TRENCH	12539-Mahul LPG Terminal (BDU) (STP	Meters	400	995433	27AAACH1 118B1ZC	Yes
	RIPTION => UNDERGROUND-CA EPTH, CABLE ROUTE MARKER-G	BLE TRENCH: EXCAVATION, SAN ALVANIZED.	D FILLING, BRICK L	AYING, BACKFILLING ANI	COMPACTIO	ON, 1800 MM V	VIDE, 1000
70	NETWORK SWITCH,MANAGED,8 PORT	12539-Mahul LPG Terminal (BDU) (STP	Each	5	84733091	27AAACH1 118B1ZC	Yes
DESC		NUMBER OF PORTS:8; APPLICATI	ON:OUTDOOR				
71	JUNCTION BOX	12539-Mahul LPG Terminal (BDU) (STP	Each	1	995461	27AAACH1 118B1ZC	Yes
DESC 72		LLATION OF WEATHER PROOF JU	NCTION BOX AS PEI	TENDER DOCUMENT.	005461	27444041	Yes
	FLP JUNCTION BOX	12539-Mahul LPG Terminal (BDU) (STP			995461	27AAACH1 118B1ZC	
WITH	TERMINALS WITH TOP AND BOT	ND COMMISSIONING OF 12 WAY H TOM TYPE CABLE ENTRIES, LM 6	CONSTRUCTION, IP	66 CLASS PROTECTION, T	EMPERATURI	E CLASS T3, S'	TAINLESS
AMEN	IDMENTS AND AS PER THE DIRECT	, NEOPRENE GASKET, SUITABLE I CTION OF ENGINEER-IN-CHARGE ED MAYE OR FOLIVAL ENT SHALL	JUNCTION BOX SHA	LL INCLUDE NECESSARY	TERMINALS I	FOR SUITABLE	E ENTRIES.
EART	H TERMINAL. JUNCTION BOX SH.	ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	ED SHORTING LINK	S FOR LOOP IN/LOOP OUT	OF CABLES. C	CONTRACTOR	SHALL
		SQ.MM CABLE), 6 NOS 1/2 INCH (F					
		(BDU) (STP			LOTTO 5 TO TO	118B1ZC	
	RIPTION => PART NAME:CAMER ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S`	YSTEM; EQUI	PMENT MODE	EL:N/A; AS
74	HARD DISK DRIVE per TB cost	12539-Mahul LPG Terminal	Each	10		27AAACH1	Yes

	DESCRIPTION => SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF HDD/NAS FOR STORAGE OF DATA FROM CAMERA FOR A PERIOD OF 90 DAYS S PER TECHNICAL SPECIFICATION.								
75	55 inch LED TV	12539-Mahul LPG Terminal (BDU) (STP	Each	2	998734	27AAACH1 118B1ZC	Yes		
	RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P			1				
76	VIDEO MANAGEMENT SOFTWARE	12539-Mahul LPG Terminal (BDU) (STP	Each	23	998733	27AAACH1 118B1ZC	Yes		
	RIPTION => MANAGEMENT SOFT		1		LICENSE.	07444014	V		
77	INSTLN COMMNG TESTING CCTV SYS	12539-Mahul LPG Terminal (BDU) (STP	Lump Sum	1		118B1ZC	Yes		
	RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACHN		EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AI	ND CONDITIO	NS		
78	Fixed Camera FL12	12891-GOA LPG PLANT	Each	7	85258090	30AAACH1 118B1ZP	Yes		
COMF	RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT		
79	FLP Enclosur Fixed Camera F12	12891-GOA LPG PLANT	Each	3		30AAACH1 118B1ZP	Yes		
INSTI CERT CLAS	RIPTION => PART NAME;FLAMEI TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2; DER COATING; EARTHLING:INTER	ARCH) APPROVED FLAME PROOI E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA. IIB. T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004. INGRESS I	ICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001: F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO		
80	Fixed camera motorized zoom2MP	12891-GOA LPG PLANT	Each	1	85258020	30AAACH1 118B1ZP	Yes		
	RIPTION => TYPE:HD IP FIXED CAMATION:2MP,WITH MOTORIZED			/VERINT/HONEYWELL; MC	DEL NUMBE	R:N/A; ADDITI	IONAL		
81	Indoor (Dome) 2MP	12891-GOA LPG PLANT	Each	2	85258020	30AAACH1 118B1ZP	Yes		
	RIPTION => TYPE:HD IP DOME CACE; DETAILED SPECIFICATION SH		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND	MFZ LENS PIC	KUP		
82	Fixed Camera FL50	12891-GOA LPG PLANT	Each	4	85258090	30AAACH1 118B1ZP	Yes		
COMF	RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS	MERA; RECORDING S:12-50 MM; INGRES	RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEC	IXELS HD; IM FRAME RAT	AGE E:25/30 FPS; N	IIGHT		
83	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12891-GOA LPG PLANT	Meters	1600		30AAACH1 118B1ZP	Yes		
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS		
84	OPTICAL FIBER CABLE,SM,12 CORE	12891-GOA LPG PLANT	Each	1700		30AAACH1 118B1ZP	Yes		
	RIPTION => PART NAME:OFC CA	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI	ENT MODEL:N	I/A; AS PER		
TEND 85	ER DOCUMENT SPLY AND LAYG OF ARMOURED CAT6	12891-GOA LPG PLANT	Meters	1350	995424	30AAACH1 118B1ZP	Yes		
	RIPTION => SUPPLY AND LAYING					RING:GALVA			
86	DURED3. CONDUCTOR DIAMETER GI EARTHING WIRE 8SWG	12891-GOA LPG PLANT	Meters	250	0.85 MM6. APP		Yes		
DESC	L RIPTION => PROVIDING AND FIX	L ING 8 SWG DIA G I WIRE ON SUR	EACE OR IN RECESS	S FOR LOOP FARTHING AS	REQUIRED	TIODIZE			
87	CONST OF CABLE TRENCH	12891-GOA LPG PLANT	Meters	1500	995433	30AAACH1	Yes		
	 RIPTION => UNDERGROUND-CAI		<u>l</u> D FILLING, BRICK L	L AYING, BACKFILLING AND	COMPACTIC	118B1ZP N, 1800 MM W	/IDE, 1000		
88	EPTH, CABLE ROUTE MARKER-G. NETWORK	12891-GOA LPG PLANT	Each	3	84733091	30AAACH1	Yes		
	SWITCH,MANAGED,8 PORT			3	047 3309 1	118B1ZP	165		
89	RIPTION => NETWORK SWITCH; NETWORK SWITCH,MANAGED 12 PORT	12891-GOA LPG PLANT	Set	1		30AAACH1 118B1ZP	Yes		
VOLT	RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; NOWED								
90	JUNCTION BOX	12891-GOA LPG PLANT	Each	1	995461	30AAACH1 118B1ZP	Yes		
	RIPTION => SUPPLY AND INSTAL		NCTION BOX AS PEI		1				
91	FLP JUNCTION BOX	12891-GOA LPG PLANT	Each	3	995461	30AAACH1 118B1ZP	Yes		
WITH STEEL AMEN CLAM EART TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC IP TYPE TERMINALS OF APPROVE H TERMINAL. JUNCTION BOX SHA THE APPROVAL OF THE DIMENS (FOR 6, P. 1 SQ.MM AND 4 PAIR 1.5	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TION OF ENGINEER-IN-CHARGE D MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CF	OGENIES OF THE STREET OF THE S	EMPERATURE ED AS PER IS - TERMINALS F CTION BOX SF OF CABLES. C I (FOR 18 P 1	E CLASS T3, ST 2148 WITH LA FOR SUITABLE HALL HAVE E CONTRACTOR SQ.MM CABL RMINALS (TB	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4		
92	GI Pole 8 MT	12891-GOA LPG PLANT	Each	8		30AAACH1 118B1ZP	Yes		
	CRIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	L:N/A; AS		
93	HARD DISK DRIVE per TB cost	12891-GOA LPG PLANT	Each	20		30AAACH1 118B1ZP	Yes		
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS		
94	55 inch LED TV	12891-GOA LPG PLANT	Each	2	998734	30AAACH1 118B1ZP	Yes		

DESC	RIPTION => SUPPLY AND INSTAI	LLATION OF 55 INCH LED TV AS P	ER SPECIFICATION	ATTACHED.			
95	VIDEO MANAGEMENT SOFTWARE	12891-GOA LPG PLANT	Each	23	998733	30AAACH1 118B1ZP	Yes
		TWARE: SUPPLY AND INSTALLAT		SOFTWARE FOR CAMERAS I .	LICENSE.	l	
96	INSTLN COMMNG TESTING CCTV SYS	12891-GOA LPG PLANT 	Lump Sum	The Accession Fig. 40 pep #	THE TERMS AND	30AAACH1 118B1ZP	Yes
	IONED IN THE TENDER ATTACHN		EM AND ASSOCIATI	ED ACCESSORIES AS PER I	HE TEKMS AT	ND CONDITIO	INS
97	Fixed Camera FL12	12371-AURANGABAD LPG PLANT (STP 0409	Each	11	85258090	27AAACH1 118B1ZC	Yes
COMF		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENG ONVIF COMPLIANT WITH POE					NIGHT
98	FLP Enclosur Fixed Camera F12	12371-AURANGABAD LPG PLANT (STP 0409	Each	6		27AAACH1 118B1ZC	Yes
INSTI CERT CLAS	FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	PROOF ENCLOSURE; PART MATEI EARCH) APPROVED FLAME PROOI 5; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600° ENAL -01 NO. EXTERNAL -02 NOS.;	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS II	ICAL ENCLOSURE WITH V TION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; F	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
99	Fixed camera motorized zoom2MP	12371-AURANGABAD LPG PLANT (STP 0409	Each	4	85258020	27AAACH1 118B1ZC	Yes
		AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S		/VERINT/HONEYWELL; MC	DEL NUMBE	R:N/A; ADDITI	IONAL
100	Indoor (Dome) 2MP	12371-AURANGABAD LPG PLANT (STP 0409	Each	2	85258020	27AAACH1 118B1ZC	Yes
	RIPTION => TYPE:HD IP DOME C CE; DETAILED SPECIFICATION SH	AMERA; MANUFACTURER:N/A; M EET ATTACHED.	ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND	MFZ LENS PIC	KUP
101	Fixed camera Motorized zoom 4K	12371-AURANGABAD LPG PLANT (STP 0409	Each	3		27AAACH1 118B1ZC	Yes
	RIPTION => TYPE:FIXED NON FL. IONED IN TENDER MUST BE FOLI	AME PROOF 4K CAMERA; MANUF LOWED	FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	IONS
102	Fixed Camera FL50	12371-AURANGABAD LPG PLANT (STP 0409	Each	9	85258090	27AAACH1 118B1ZC	Yes
COMF		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS ONVIF COMPLIANT WITH POE.					IIGHT
103	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12371-AURANGABAD LPG PLANT (STP 0409	Meters	3500		27AAACH1 118B1ZC	Yes
		LLOWING 1100 VOLTS COPPER FICATIONS OF THIS TENDER.SUPI			THED STEEL	ARMOURED	CABLES AS
104	OPTICAL FIBER CABLE,SM,12 CORE	12371-AURANGABAD LPG PLANT (STP 0409	Each	2500		27AAACH1 118B1ZC	Yes
	RIPTION => PART NAME:OFC CA	BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPMI		I/A; AS PER
105	ER DOCUMENT SPLY AND LAYG OF ARMOURED CAT6	12371-AURANGABAD LPG PLANT (STP 0409	Meters	2500	995424	27AAACH1 118B1ZC	Yes
		G OF CAT6 ARMOURED NETWORI ::23 AWG4. TEMPERATURE RATIN					
106	GI EARTHING WIRE 8SWG	12371-AURANGABAD LPG PLANT (STP 0409	Meters	1500	7.03 1411410. 741 1		Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR	FACE OR IN RECESS	FOR LOOP EARTHING AS	REQUIRED.	11.02.20	
107	SPLY&LAYG OF UNARMOURED CAT6	12371-AURANGABAD LPG PLANT (STP 0409	Each	1000	995424	27AAACH1 118B1ZC	Yes
DESC		YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
108	CONST OF CABLE TRENCH	12371-AURANGABAD LPG PLANT (STP 0409	Meters	800	995433	27AAACH1 118B1ZC	Yes
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G	BLE TRENCH: EXCAVATION, SAN ALVANIZED.	D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIC	ON, 1800 MM W	/IDE, 1000
109	NETWORK SWITCH,MANAGED,8 PORT	12371-AURANGABAD LPG PLANT (STP 0409	Each	15	84733091	27AAACH1 118B1ZC	Yes
	·	NUMBER OF PORTS:8; APPLICATI					
110	NETWORK SWITCH,MANAGED 12 PORT	12371-AURANGABAD LPG PLANT (STP 0409	Set	5		27AAACH1 118B1ZC	Yes
VOLT		PORT,QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED					
111	JUNCTION BOX	12371-AURANGABAD LPG PLANT (STP 0409	Each	1	995461	27AAACH1 118B1ZC	Yes
DESC 112	RIPTION => SUPPLY AND INSTAI FLP JUNCTION BOX	LLATION OF WEATHER PROOF JU 12371-AURANGABAD LPG	NCTION BOX AS PER	R TENDER DOCUMENT.	995461	27AAACH1	Yes
		PLANT (STP 0409				118B1ZC	
WITH STEEL AMEN CLAM EART TAKE	TERMINALS WITH TOP AND BOT LHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE HERMINAL JUNCTION BOX SHATTE APPROVAL OF THE DIMENS (FOR 6, P 1 SQ.MM AND 4 PAIR 1.5)	ND COMMISSIONING OF 12 WAY F TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I CTION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO SQ.MM CABLE), 6 NOS 1/2 INCH (F	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CH OR 2 P 1 SQ.MM AND	OGENIES OF THE STREET OF THE S	EMPERATURE ED AS PER IS - TERMINALS F CTION BOX SF OF CABLES. C I (FOR 18 P 1	E CLASS T3, ST 2148 WITH LA FOR SUITABLE HALL HAVE EX CONTRACTOR SQ.MM CABLE	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
113	GI Pole 8 MT	12371-AURANGABAD LPG PLANT (STP 0409	Each	11		118B1ZC	Yes
	RIPTION => PART NAME:CAMER ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	L:N/A; AS
114	HARD DISK DRIVE per TB cost	12371-AURANGABAD LPG PLANT (STP 0409	Each	30		27AAACH1 118B17C	Yes

	CRIPTION => SUPPLY, INSTALLAT IR TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FC	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
115	55 inch LED TV	12371-AURANGABAD LPG PLANT (STP 0409	Each	2	998734	27AAACH1 118B1ZC	Yes
DESC	CRIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION .	ATTACHED.	•	•	
116	VIDEO MANAGEMENT SOFTWARE	12371-AURANGABAD LPG PLANT (STP 0409	Each	43	998733	27AAACH1 118B1ZC	Yes
DESC	RIPTION => MANAGEMENT SOFT	WARE: SUPPLY AND INSTALLAT	ION OF CCTV VMS S	SOFTWARE FOR CAMERAS	LICENSE.	ı	
117	INSTLN COMMNG TESTING CCTV SYS	12371-AURANGABAD LPG PLANT (STP 0409	Lump Sum	1		27AAACH1 118B1ZC	Yes
	CRIPTION => INSTALLATION AND TIONED IN THE TENDER ATTACHN		EM AND ASSOCIATI	ED ACCESSORIES AS PER T	THE TERMS AN	ND CONDITIO	NS
118	CAMC FOR CCTV SYSTEM PER YEAR	12402-Hazarwadi LPG plant	Year	5		27AAACH1 118B1ZC	Yes
	CRIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV 12408-SOLAPUR-LPG			FOR SUPPLII	27AAACH1	Yes
119	CAMC FOR CCTV SYSTEM PER YEAR	12408-SOLAPUR-LPG	Year	5		118B1ZC	Yes
DESC	RIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	'E AMC AFTER EXPI	1	FOR SUPPLI	ED SYSTEM.	
120	CAMC FOR CCTV SYSTEM PER YEAR	12471-CHANDRAPUR LPG (STP 0414)	Year	5		27AAACH1 118B1ZC	Yes
DESC	CRIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSIV	E AMC AFTER EXPI	RY OF WARRANTY PERIOD	FOR SUPPLI	ED SYSTEM.	
121	CAMC FOR CCTV SYSTEM PER YEAR	12539-Mahul LPG Terminal (BDU) (STP	Year	5		27AAACH1 118B1ZC	Yes
DESC	CRIPTION => CAMC FOR SURVEIL		E AMC AFTER EXPL	RY OF WARRANTY PERIOR	FOR STIPPLII		
122	CAMC FOR CCTV SYSTEM	12891-GOA LPG PLANT	Year	5	I OK BUTTER	30AAACH1	Yes
DESC	PER YEAR CRIPTION => CAMC FOR SURVEIL	I ANCE SYSTEM: COMPREHENSIV	E AMC AFTED EXDI	DV OF WADDANTY DEDICE	EOD SHIDDI II	118B1ZP	
123	CAMC FOR CCTV SYSTEM PER YEAR	12371-AURANGABAD LPG PLANT (STP 0409	Year	5	TOK SUFFLII	27AAACH1 118B1ZC	Yes
DESC	CRIPTION => CAMC FOR SURVEIL		E AMC AFTER FYPI	RV OF WARRANTY PERIOR	FOR STIPPLII		
DESC		edule 7 SOUTH CENTRAL ZONE	E AME AFTER EATT	KT OF WARRANTT TERIOL	J TOK SOTTEN		anadatory: No
1	Fixed Camera FL12	12731-RAJAHMUNDARY LPG	Each	12	85258090	37AAACH1	Yes
						118B1ZB	
COMF	CRIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
2	FLP Enclosur Fixed Camera F12	12731-RAJAHMUNDARY LPG	Each	5		37AAACH1 118B1ZB	Yes
	CRIPTION => PART NAME:FLAMER TUTE OF MINING AND FUEL RESE						
CERT	IFICATION SHALL BE AVAILABLE	E; TECHNICAL SPECIFICATION: TY	PE OF EX-PROTECT	TON:EEX-D TYPE, IS/IEC600	079-1:2007, ZO	NE	
	SIFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER						POLYESTER
3	Fixed camera motorized zoom2MP	12731-RAJAHMUNDARY LPG	Each	4	85258020	37AAACH1 118B1ZB	Yes
	CRIPTION => TYPE:HD IP FIXED CA			/VERINT/HONEYWELL; MC	DEL NUMBEI	R:N/A; ADDIT	IONAL
4	RMATION:2MP,WITH MOTORIZED Indoor (Dome) 2MP	12731-RAJAHMUNDARY LPG	Each	3	85258020	37AAACH1	Yes
	,					118B1ZB	
	CRIPTION => TYPE:HD IP DOME CA CE; DETAILED SPECIFICATION SH		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I	MFZ LENS PIC	CKUP
5	Fixed camera Motorized zoom 4K	12731-RAJAHMUNDARY LPG	Each	1		37AAACH1 118B1ZB	Yes
	L CRIPTION => TYPE:FIXED NON FLA		L FACTURER:N/A; MOI	I DEL NUMBER:N/A; IN ADDI	TION TO THIS		TONS
MENT 6	TIONED IN TENDER MUST BE FOLI Fixed Camera FL50	LOWED 12731-RAJAHMUNDARY LPG	Each	7	85258090	37AAACH1	Yes
0	Fixed Camera FL50	12/31-RAJAHWUNDART LPG	Each	1	00200090	118B1ZB	162
COME	CRIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
7	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12731-RAJAHMUNDARY LPG	Meters	2000		37AAACH1 118B1ZB	Yes
	CRIPTION => SUPPLY OF THE FO S 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS
8	OPTICAL FIBER CABLE,SM,12 CORE	12731-RAJAHMUNDARY LPG	Each	1500		37AAACH1 118B1ZB	Yes
	CRIPTION => PART NAME:OFC CA ER DOCUMENT	I BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	I IPMENT NAME:CCTV SYST	EM; EQUIPME		I/A; AS PER
9	SPLY AND LAYG OF ARMOURED CAT6	12731-RAJAHMUNDARY LPG	Meters	1500	995424	37AAACH1 118B1ZB	Yes
	CRIPTION => SUPPLY AND LAYING					RING:GALVA	
10	OURED3. CONDUCTOR DIAMETER GI EARTHING WIRE 8SWG	12731-RAJAHMUNDARY LPG	G:-200 TO 600 C5. TH Meters	600	J.65 MM6. APP	37AAACH1	Yes
						118B1ZB	
	RIPTION => PROVIDING AND FIX					274440114	Vaa
11	SPLY&LAYG OF UNARMOURED CAT6	12731-RAJAHMUNDARY LPG	Each	1500	995424	37AAACH1 118B1ZB	Yes
DESC	CRIPTION => PROVIDING AND LA	YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTION	N OF ENGINE	ER-IN-
12	CONST OF CABLE TRENCH	12731-RAJAHMUNDARY LPG	Meters	2500	995433	37AAACH1 118B1ZB	Yes
DESC	CRIPTION => UNDERGROUND-CAL	BLE TRENCH: EXCAVATION, SAN ALVANIZED.	D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO	N, 1800 MM V	VIDE, 1000

13	NETWORK SWITCH,MANAGED,8 PORT	12731-RAJAHMUNDARY LPG	Each	6	84733091	37AAACH1 118B1ZB	Yes
DESC	RIPTION => NETWORK SWITCH; I	NUMBER OF PORTS:8; APPLICATION	ON:OUTDOOR				
14	NETWORK SWITCH,MANAGED 12 PORT	12731-RAJAHMUNDARY LPG	Set	5		37AAACH1 118B1ZB	Yes
	AGE:N/A; MANUFACTURER:N/A; N	PORT,QUANTITY:12; DATA TRAN; MODEL NUMBER:N/A; MANAGED,					
15	JUNCTION BOX	12731-RAJAHMUNDARY LPG	Each	10	995461	37AAACH1 118B1ZB	Yes
		LATION OF WEATHER PROOF JUI		i e			
16	FLP JUNCTION BOX	12731-RAJAHMUNDARY LPG	Each	8	995461	37AAACH1 118B1ZB	Yes
WITH STEEL AMEN CLAM	TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIREC PTYPE TERMINALS OF APPROVE	ND COMMISSIONING OF 12 WAY F TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE F TION OF ENGINEER-IN-CHARGE. ID MAKE OR EQUIVALENT SHALL IALL BE COMPLETE WITH REOUIR	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR	66 CLASS PROTECTION, TI DII B, CCOE CMRI CERTIFIE LL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC	EMPERATURE ED AS PER IS - FERMINALS F TION BOX SH	E CLASS T3, ST 2148 WITH LA OR SUITABLE IALL HAVE EX	TAINLESS TEST E ENTRIES. KTERNAL
		ONS OF THIS JUNCTION BOX FRO Q.MM CABLE), 6 NOS 1/2 INCH (F		1 P 1 SQ.MM CABLE) NPT			
17	GI Pole 8 MT	12731-RAJAHMUNDARY LPG	Each	20		37AAACH1 118B1ZB	Yes
	RIPTION => PART NAME:CAMERA ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	JUFACTURER:N/A; E	QUIPMENT NAME:CCTV SY	YSTEM; EQUII	PMENT MODE	L:N/A; AS
18	HARD DISK DRIVE per TB cost	12731-RAJAHMUNDARY LPG	Each	50		37AAACH1 118B1ZB	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FC	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
19	55 inch LED TV	12731-RAJAHMUNDARY LPG	Each	2	998734	37AAACH1 118B1ZB	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION A	ATTACHED.			
20	VIDEO MANAGEMENT SOFTWARE	12731-RAJAHMUNDARY LPG	Each	42	998733	37AAACH1 118B1ZB	Yes
DESC	RIPTION => MANAGEMENT SOFT	WARE: SUPPLY AND INSTALLAT	ION OF CCTV VMS S	OFTWARE FOR CAMERAS	LICENSE.		
21	INSTLN COMMNG TESTING CCTV SYS	12731-RAJAHMUNDARY LPG	Lump Sum	1		37AAACH1 118B1ZB	Yes
	RIPTION => INSTALLATION AND IONED IN THE TENDER ATTACHM	COMMISSIONING OF CCTV SYST MENTS.	EM AND ASSOCIATE	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITION	NS
22	Fixed Camera FL12	12829-WARANGAL LPG PLANT	Each	14	85258090	36AAACH1 118B1ZD	Yes
COMP		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS ONVIF COMPLIANT WITH POE					NIGHT
23	FLP Enclosur Fixed Camera F12	12829-WARANGAL LPG PLANT	Each	7		36AAACH1 118B1ZD	Yes
INSTIT CERTI CLASS	TUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	PROOF ENCLOSURE; PART MATER ARCH) APPROVED FLAME PROOI I; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600' NAL -01 NO. EXTERNAL -02 NOS.;	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS II	ICAL ENCLOSURE WITH V TON:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 0529-1:2001; P	ERTIFICATES. NE AINT:EPOXY	ALSO PESO
24		12829-WARANGAL LPG PLANT				36AAACH1 118B1ZD	Yes
	RIPTION => TYPE:HD IP FIXED CA	AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION SI		/ /VERINT/HONEYWELL; MC	DEL NUMBER		ONAL
25	Indoor (Dome) 2MP		Each Each	3	85258020	36AAACH1 118B1ZD	Yes
	RIPTION => TYPE:HD IP DOME CA	AMERA; MANUFACTURER:N/A; M	ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND I		KUP
26	Fixed camera Motorized zoom 4K		Each	2		36AAACH1 118B1ZD	Yes
	RIPTION => TYPE:FIXED NON FLATIONED IN TENDER MUST BE FOLI	AME PROOF 4K CAMERA; MANUF	ACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS		IONS
27	Fixed Camera FL50		Each	8	85258090	36AAACH1 118B1ZD	Yes
COMP		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS				AGE	IGHT
28	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12829-WARANGAL LPG PLANT	Meters	2850		36AAACH1 118B1ZD	Yes
	RIPTION => SUPPLY OF THE FO	LLOWING 1100 VOLTS COPPER			THED STEEL		CABLES AS
29	OPTICAL FIBER CABLE,SM,12	FICATIONS OF THIS TENDER.SUPP 12829-WARANGAL LPG PLANT	Each	2900			Yes
		BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	I IPMENT NAME:CCTV SYST	L EM; EQUIPME	118B1ZD ENT MODEL:N	/A; AS PER
30	SPLY AND LAYG OF	12829-WARANGAL LPG PLANT	Meters	250	995424		Yes
		G OF CAT6 ARMOURED NETWORI					
31	GI EARTHING WIRE 8SWG	:23 AWG4. TEMPERATURE RATIN 12829-WARANGAL LPG PLANT	G:-200 TO 600 C5. TH Meters	380	APP .ODVIIVI CO.	36AAACH1	Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR	FACE OR IN RECESS	FOR LOOP FARTHING AS	REOURED	118B1ZD	<u> </u>
32	SPLY&LAYG OF	12829-WARANGAL LPG PLANT	Each	1000	995424	36AAACH1	Yes
	UNARMOURED CAT6	YING AMP CAT 6 CABLE FOR LAN				118B1ZD	
CHAR			- (===================================				

33	CONST OF CABLE TRENCH	12829-WARANGAL LPG PLANT	Meters	800	995433	36AAACH1 118B1ZD	Yes
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G.	BLE TRENCH: EXCAVATION, SAN ALVANIZED.	D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIO	N, 1800 MM V	VIDE, 1000
34	NETWORK SWITCH,MANAGED,8 PORT	12829-WARANGAL LPG PLANT	Each	20	84733091	36AAACH1 118B1ZD	Yes
DESC		NUMBER OF PORTS:8; APPLICATI	ON:OUTDOOR	·	1		1
35	NETWORK SWITCH,MANAGED 12 PORT	12829-WARANGAL LPG PLANT	Set	2		36AAACH1 118B1ZD	Yes
	AGE:N/A; MANUFACTURER:N/A; I	PORT,QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED					
36	JUNCTION BOX	12829-WARANGAL LPG PLANT	Each	14	995461	36AAACH1 118B1ZD	Yes
		LATION OF WEATHER PROOF JU		i	005404	00444014	lv.
37	FLP JUNCTION BOX	12829-WARANGAL LPG PLANT	Each	8	995461	36AAACH1 118B1ZD	Yes
WITH STEEL AMEN CLAM EARTI TAKE	TERMINALS WITH TOP AND BOT HARDWARE, EARTHING BOLTS, DMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVE HERMINAL. JUNCTION BOX SHATTE APPROVAL OF THE DIMENS!	ND COMMISSIONING OF 12 WAY F TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE F CTION OF ENGINEER-IN-CHARGE. ED MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO SQ.MM CABLE), 6 NOS 1/2 INCH (F	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CF	2 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURE ED AS PER IS - TERMINALS F CTION BOX SH OF CABLES. C I (FOR 18 P 1	E CLASS T3, S' 2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
38	GI Pole 8 MT	12829-WARANGAL LPG PLANT	Each	12		36AAACH1 118B1ZD	Yes
	RIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	UFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUII	PMENT MODE	EL:N/A; AS
39	HARD DISK DRIVE per TB cost	12829-WARANGAL LPG PLANT	Each	30		36AAACH1 118B1ZD	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
40	55 inch LED TV	12829-WARANGAL LPG PLANT	Each	2	998734	36AAACH1 118B1ZD	Yes
DESC:	RIPTION => SUPPLY AND INSTAI VIDEO MANAGEMENT	LATION OF 55 INCH LED TV AS P 12829-WARANGAL LPG PLANT	ER SPECIFICATION .	ATTACHED. 45	998733	36AAACH1	Yes
	SOFTWARE					118B1ZD	res
DESC:	RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING	TWARE: SUPPLY AND INSTALLAT 12829-WARANGAL LPG PLANT	ION OF CCTV VMS S	OFTWARE FOR CAMERAS 1	LICENSE.	36AAACH1	Yes
	CCTV SYS		. ,			118B1ZD	
	RIPTION => INSTALLATION AND IONED IN THE TENDER ATTACHN	COMMISSIONING OF CCTV SYST MENTS.	EM AND ASSOCIATI	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
43	Fixed Camera FL12	12921-KONDAPALLI LPG	Each	11	85258090	37AAACH1 118B1ZB	Yes
COMP		TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENSE ONVIF COMPLIANT WITH POE					NIGHT
44	FLP Enclosur Fixed Camera F12	12921-KONDAPALLI LPG	Each	7		37AAACH1 118B1ZB	Yes
INSTIT CERTI CLASS	TUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2;	PROOF ENCLOSURE; PART MATEI ARCH) APPROVED FLAME PROOI 5; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600 NAL -01 NO. EXTERNAL -02 NOS.;	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	ICAL ENCLOSURE WITH V TON:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 50529-1:2001; P	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
45	Fixed camera motorized zoom2MP	12921-KONDAPALLI LPG	Each	3	85258020	37AAACH1 118B1ZB	Yes
		AMERA; MANUFACTURER:BOSCF ZOOM; AS PER SPECIFICATION S		/VERINT/HONEYWELL; MC	DEL NUMBEI	R:N/A; ADDIT	IONAL
46	Indoor (Dome) 2MP	12921-KONDAPALLI LPG	Each Each	4	85258020	37AAACH1	Yes
		L AMERA; MANUFACTURER:N/A; M	ODEL NUMBER:N/A	I ; ADDITIONAL INFORMATI	ON:IRF AND I	118B1ZB MFZ LENS PIC	CKUP
47	E; DETAILED SPECIFICATION SH Fixed Camera FL50	12921-KONDAPALLI LPG	Each	25	85258090	37AAACH1 118B1ZB	Yes
COMP		TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS CONVIE COMPLIANT WITH POE				AGE	NIGHT
48	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12921-KONDAPALLI LPG	Meters	7000		37AAACH1 118B1ZB	Yes
	RIPTION => SUPPLY OF THE FO	LLOWING 1100 VOLTS COPPER FICATIONS OF THIS TENDER.SUPI			THED STEEL		CABLES AS
49	OPTICAL FIBER CABLE,SM,12 CORE	12921-KONDAPALLI LPG	Each Each	7000		37AAACH1 118B1ZB	Yes
		l BLE; PART NUMBER:N/A; MANUF	ACTURER:N/A; EQU	I IPMENT NAME:CCTV SYST	EM; EQUIPME		J/A; AS PER
50	SPLY AND LAYG OF ARMOURED CAT6	12921-KONDAPALLI LPG	Meters	2600	995424	37AAACH1 118B1ZB	Yes
	RIPTION => SUPPLY AND LAYING	I G OF CAT6 ARMOURED NETWORI :23 AWG4. TEMPERATURE RATIN				RING:GALVA	
51	GI EARTHING WIRE 8SWG	12921-KONDAPALLI LPG	Meters	1600	MINIO, ALT	37AAACH1 118B1ZB	Yes
DESC	RIPTION => PROVIDING AND FIX	ING 8 SWG DIA G.I. WIRE ON SUR		FOR LOOP EARTHING AS			1
52	SPLY&LAYG OF UNARMOURED CAT6	12921-KONDAPALLI LPG	Each	1500	995424	37AAACH1 118B1ZB	Yes
DESC		YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-

53	CONST OF CABLE TRENCH	12921-KONDAPALLI LPG	Meters	1800	995433	37AAACH1 118B1ZB	Yes
	DESCRIPTION => UNDERGROUND-CABLE TRENCH: EXCAVATION, SAND FILLING, BRICK LAYING, BACKFILLING AND COMPACTION, 1800 MM WIDE, 1000 MM DEPTH, CABLE ROUTE MARKER-GALVANIZED.						
54	NETWORK SWITCH,MANAGED,8 PORT	12921-KONDAPALLI LPG	Each	15	84733091	37AAACH1 118B1ZB	Yes
	RIPTION => NETWORK SWITCH;	, , , , , , , , , , , , , , , , , , ,		I		ı	I
55	NETWORK SWITCH,MANAGED 12 PORT	12921-KONDAPALLI LPG	Set	5		37AAACH1 118B1ZB	Yes
VOLT	RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; NOWED						
56	JUNCTION BOX	12921-KONDAPALLI LPG	Each	16	995461	37AAACH1 118B1ZB	Yes
	RIPTION => SUPPLY AND INSTAL			1	005464	274 4 4 01 14	V
57	FLP JUNCTION BOX	12921-KONDAPALLI LPG	Each	9	995461	37AAACH1 118B1ZB	Yes
WITH STEEL AMEN CLAM EART TAKE	RIPTION => SUPPLY, INSTALL AN TERMINALS WITH TOP AND BOY. HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIRECTORY TO THE TERMINALS OF APPROVE HERMINAL, JUNCTION BOX SHOTHE APPROVAL OF THE DIMENS. (FOR 6, P 1 SQ.MM AND 4 PAIR 1 S	TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I TTION OF ENGINEER-IN-CHARGE. D MAKE OR EQUIVALENT SHALI ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK OM ENGINEER-IN-CH	2 66 CLASS PROTECTION, TI DI IB, CCOE CMRI CERTIFIE ILL INCLUDE NECESSARY " ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT 1 HARGE. 2 NO 1 1/2 INCH NP	EMPERATURE ED AS PER IS - FERMINALS F CTION BOX SH OF CABLES. C F (FOR 18 P 1	E CLASS T3, ST 2148 WITH LA FOR SUITABLE HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
58	GI Pole 8 MT	12921-KONDAPALLI LPG	Each	51		37AAACH1 118B1ZB	Yes
	CRIPTION => PART NAME:CAMER. ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV SY	YSTEM; EQUII	PMENT MODE	EL:N/A; AS
59	HARD DISK DRIVE per TB cost	12921-KONDAPALLI LPG	Each	120		37AAACH1 118B1ZB	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FC	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
60	55 inch LED TV	12921-KONDAPALLI LPG	Each	2	998734	37AAACH1 118B1ZB	Yes
DESC	RIPTION => SUPPLY AND INSTAL	LATION OF 55 INCH LED TV AS P	ER SPECIFICATION	ATTACHED.			
61	VIDEO MANAGEMENT SOFTWARE	12921-KONDAPALLI LPG	Each	58	998733	37AAACH1 118B1ZB	Yes
	RIPTION => MANAGEMENT SOFT				LICENSE.	<u> </u>	ı
62	INSTLN COMMNG TESTING CCTV SYS	12921-KONDAPALLI LPG	Lump Sum	1		37AAACH1 118B1ZB	Yes
	RIPTION => INSTALLATION AND TONED IN THE TENDER ATTACH		EM AND ASSOCIATE	ED ACCESSORIES AS PER T	HE TERMS AN	ND CONDITIO	NS
63	Fixed Camera FL12	12935-ANANTAPUR LPG PLANT	Each	12	85258090	37AAACH1 118B1ZB	Yes
COMF	RIPTION => IP/ NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
64	FLP Enclosur Fixed Camera F12	12935-ANANTAPUR LPG PLANT	Each	5		37AAACH1 118B1ZB	Yes
INSTI CERT CLAS	RIPTION => PART NAME:FLAMEI TUTE OF MINING AND FUEL RESE IFICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2; DER COATING; EARTHLING:INTER	ARCH) APPROVED FLAME PROOI E; TECHNICAL SPECIFICATION: TY GAS GROUP:IIA, IIB, T6 IS/IEC600	F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS II	ICAL ENCLOSURE WITH V. TON:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6	ALID TEST CE 079-1:2007, ZO 0529-1:2001; P	ERTIFICATES. NE PAINT:EPOXY	ALSO PESO
65	Fixed camera motorized zoom2MP	12935-ANANTAPUR LPG PLANT	Each	1	85258020	37AAACH1 118B1ZB	Yes
	CRIPTION => TYPE:HD IP FIXED CARMATION:2MP,WITH MOTORIZED			/VERINT/HONEYWELL; MC	DEL NUMBEI	R:N/A; ADDITI	IONAL
66	Indoor (Dome) 2MP	12935-ANANTAPUR LPG PLANT	Each	3	85258020	37AAACH1 118B1ZB	Yes
	RIPTION => TYPE:HD IP DOME CA		ODEL NUMBER:N/A	; ADDITIONAL INFORMATI	ON:IRF AND	MFZ LENS PIC	CKUP
67	Fixed camera Motorized zoom 4K	12935-ANANTAPUR LPG PLANT	Each	1		37AAACH1 118B1ZB	Yes
	RIPTION => TYPE:FIXED NON FL. TONED IN TENDER MUST BE FOLI		FACTURER:N/A; MOI	DEL NUMBER:N/A; IN ADDI	TION TO THIS	S, SPECIFICAT	TONS
68	Fixed Camera FL50	12935-ANANTAPUR LPG PLANT	Each	10	85258090	37AAACH1 118B1ZB	Yes
COMF	RIPTION => IP/NETWORK CCTV; PRESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE	TREAM; FOCAL LENGTH OF LENS					NIGHT
69	3CORE 4SQ MM CBL,ARM,1.1KV,CU,	12935-ANANTAPUR LPG PLANT	Meters	2500		37AAACH1 118B1ZB	Yes
	RIPTION => SUPPLY OF THE FO 5 7098 PART-1 AND AS PER SPECII				THED STEEL	ARMOURED	CABLES AS
70	OPTICAL FIBER CABLE,SM,12 CORE	12935-ANANTAPUR LPG PLANT	Each	2500		37AAACH1 118B1ZB	Yes
	CRIPTION => PART NAME:OFC CA ER DOCUMENT		ACTURER:N/A; EQU	IPMENT NAME:CCTV SYST	EM; EQUIPME		J/A; AS PER
71	SPLY AND LAYG OF ARMOURED CAT6	12935-ANANTAPUR LPG PLANT	Meters	2500	995424	37AAACH1 118B1ZB	Yes
	CRIPTION => SUPPLY AND LAYING DURED3. CONDUCTOR DIAMETER						
72	GI EARTHING WIRE 8SWG	12935-ANANTAPUR LPG PLANT	Meters	2000		37AAACH1 118B1ZB	Yes
DESC	RIPTION => PROVIDING AND FIX		FACE OR IN RECESS	FOR LOOP EARTHING AS	REQUIRED.		

	SPLY&LAYG OF UNARMOURED CAT6	12935-ANANTAPUR LPG PLANT	Each	2000	995424	37AAACH1 118B1ZB	Yes
DESC		YING AMP CAT 6 CABLE FOR LAN	WIRING (D-LINK/E)	QUIVALEN MAKES AS PER	INSTRUCTIO	N OF ENGINE	ER-IN-
74	CONST OF CABLE TRENCH	12935-ANANTAPUR LPG PLANT	Meters	1600	995433	37AAACH1 118B1ZB	Yes
	RIPTION => UNDERGROUND-CAI EPTH, CABLE ROUTE MARKER-G	BLE TRENCH: EXCAVATION, SAN ALVANIZED.	D FILLING, BRICK L	AYING, BACKFILLING AND	COMPACTIC	N, 1800 MM V	VIDE, 1000
75	NETWORK SWITCH,MANAGED,8 PORT	12935-ANANTAPUR LPG PLANT	Each	12	84733091	37AAACH1 118B1ZB	Yes
DESC 76	RIPTION => NETWORK SWITCH; NETWORK SWITCH.MANAGED	NUMBER OF PORTS:8; APPLICATI 12935-ANANTAPUR LPG	ON:OUTDOOR Set	2	1	37AAACH1	Yes
	12 PORT	PLANT				118B1ZB	
	AGE:N/A; MANUFACTURER:N/A; I	PORT,QUANTITY:12; DATA TRAN MODEL NUMBER:N/A; MANAGED					
77	JUNCTION BOX	12935-ANANTAPUR LPG PLANT	Each	7	995461	37AAACH1 118B1ZB	Yes
78	FLP JUNCTION BOX	LLATION OF WEATHER PROOF JU 12935-ANANTAPUR LPG	Each	7	995461	37AAACH1	Yes
		PLANT				118B1ZB	
WITH STEEL AMEN CLAM EART TAKE	TERMINALS WITH TOP AND BOT, HARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIREC P TYPE TERMINALS OF APPROVEH TERMINAL. JUNCTION BOX SH. THE APPROVAL OF THE DIMENS	ND COMMISSIONING OF 12 WAY I TOM TYPE CABLE ENTRIES, LM 6 NEOPRENE GASKET, SUITABLE I CTION OF ENGINEER-IN-CHARGE ED MAKE OR EQUIVALENT SHALL ALL BE COMPLETE WITH REQUIR IONS OF THIS JUNCTION BOX FRO SQ.MM CABLE), 6 NOS 1/2 INCH (F	CONSTRUCTION, IP FOR GROUP II A AND JUNCTION BOX SHA L BE PROVIDED FOR ED SHORTING LINK DM ENGINEER-IN-CF	2 66 CLASS PROTECTION, TI D II B, CCOE CMRI CERTIFIE ILL INCLUDE NECESSARY ALL JUNCTION BOX. JUNC S FOR LOOP IN/LOOP OUT HARGE. 2 NO 1 1/2 INCH NP	EMPERATURE ED AS PER IS - TERMINALS F CTION BOX SF OF CABLES. C I (FOR 18 P 1	E CLASS T3, S' 2148 WITH LA FOR SUITABLI HALL HAVE E CONTRACTOR SQ.MM CABL	TAINLESS ATEST E ENTRIES. XTERNAL SHALL E), 4 NO 3/4
79	GI Pole 8 MT	12935-ANANTAPUR LPG PLANT	Each	19		37AAACH1 118B1ZB	Yes
	RIPTION => PART NAME:CAMER ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MAN	NUFACTURER:N/A; E	QUIPMENT NAME:CCTV S	YSTEM; EQUI	PMENT MODE	EL:N/A; AS
80	HARD DISK DRIVE per TB cost	12935-ANANTAPUR LPG PLANT	Each	50		37AAACH1 118B1ZB	Yes
	RIPTION => SUPPLY, INSTALLAT R TECHNICAL SPECIFICATION.	ION, TESTING AND COMMISSION	ING OF HDD/NAS FO	OR STORAGE OF DATA FRO	M CAMERA F	OR A PERIOD	OF 90 DAYS
81	55 inch LED TV	12935-ANANTAPUR LPG PLANT	Each	2	998734	37AAACH1 118B1ZB	Yes
		LLATION OF 55 INCH LED TV AS P			1	1	
82	VIDEO MANAGEMENT SOFTWARE	12935-ANANTAPUR LPG PLANT	Each	40	998733	37AAACH1 118B1ZB	Yes
DESC 83	RIPTION => MANAGEMENT SOFT INSTLN COMMNG TESTING	TWARE: SUPPLY AND INSTALLAT 12935-ANANTAPUR LPG	TION OF CCTV VMS S Lump Sum	OFTWARE FOR CAMERAS 1	LICENSE.	37AAACH1	Yes
	CCTV SYS	PLANT	Lump Sum	'		118B1ZB	162
	DIDTION - INSTALL ATION AND	COMMISSIONING OF CCTV SYST	EM AND ACCOCIATI	ED ACCESSODIES AS DED T	LE TEDME AN	-	NIC
MENT	IONED IN THE TENDER ATTACH		1	T	1	ND CONDITIO	
MENT 84	IONED IN THE TENDER ATTACHN Fixed Camera FL12	MENTS. 12811-CHERLAPALLY LPG	Each	13	85258090	36AAACH1 118B1ZD	Yes
MENT 84 DESC COMF	IONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV;	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CA TREAM; FOCAL LENGTH OF LENS	Each	13 RESOLUTION:1920X1080 P	85258090 PIXELS HD; IM	36AAACH1 118B1ZD	Yes
MENT 84 DESC COMF	IONED IN THE TENDER ATTACHM Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGED ON VIF COMPLIANT WITH POE	Each	13 RESOLUTION:1920X1080 P	85258090 PIXELS HD; IM	36AAACH1 118B1ZD	Yes
MENT 84 DESC COMP VISIO 85 DESC INSTIT CERT CLAS: POWL	IONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI RUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; ER COATING; EARTHLING:INTER	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENSTONIC CONVIF COMPLIANT WITH POE 12811-CHERLAPALLY LPG PROOF ENCLOSURE; PART MATERIARCH) APPROVED FLAME PROOF, TECHNICAL SPECIFICATION: TO GAS GROUP:IIA, IIB, T6 IS/IEC600:NAL -01 NO. EXTERNAL -02 NOS.	Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALUI F ALUMINA ELECTR 79-0:2004, INGRESS I CABLE ENTRY: AS	13 RESOLUTION:1920X1080 P S PROTECTION:1P66; VIDEO 6 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC60 P PROTECTION:1P66 IS/IEC6 PER REQUIRE; HARDWARE	85258090 EXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CE 709-1:2007, ZO 70529-1:2001; F E: STAINLESS	36AAACH1 118B1ZD AGE E:25/30 FPS; 1 36AAACH1 118B1ZD PLY CIMFR(C ERTIFICATES. NE AINT:EPOXY STEEL	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER
MENT 84 DESC COMP VISIO 85 DESC INSTI CERT CLASS	IONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE SI: RIPTION => REGULATION FIXED CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI TUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2;	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGTH OF LENGTH OF LENGTH FOCAL LENGTH OF LENGTH POE 12811-CHERLAPALLY LPG PROOF ENCLOSURE; PART MATERIARCH) APPROVED FLAME PROOF STECHNICAL SPECIFICATION: TYGAS GROUP:IIA, IIB, T6 IS/IEC600	Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALUI F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I	13 RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO 6 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC600	85258090 IXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CF 709-1:2007, ZO 50529-1:2001; F	36AAACH1 118B1ZD AGE 1E:25/30 FPS; 1 36AAACH1 118B1ZD PLY CIMFR(C ERTIFICATES. NE VAINT:EPOXY	Yes NIGHT Yes ENTRAL ALSO PESO
MENTI 84 DESC COMP VISIO 85 DESC INSTIT CERTS CLASS POWE 86 DESC	IONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAME! FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; ER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP RIPTION => TYPE:HD IP FIXED C.	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENSTONIC CONVIF COMPLIANT WITH POE 12811-CHERLAPALLY LPG PROOF ENCLOSURE; PART MATERIARCH) APPROVED FLAME PROOF, TECHNICAL SPECIFICATION: TO GAS GROUP:IIA, IIB, T6 IS/IEC600:NAL -01 NO. EXTERNAL -02 NOS.	Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALU F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I CABLE ENTRY: AS Each R/SONY/AXIS/PELCO	13 RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO 6 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6 PER REQUIRE; HARDWARE 2	85258090 IXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CE 779-1:2007, ZO 50529-1:2001; F 3: STAINLESS 85258020	36AAACH1 118B1ZD AGE E:25/30 FPS; 1 36AAACH1 118B1ZD PLY CIMFR(C ERTIFICATES. NE VAINT:EPOXY STEEL 36AAACH1 118B1ZD	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes
MENTI 84 DESC COMP VISIO 85 DESC INSTIT CERTS CLASS POWE 86 DESC	IONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAME! FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; ER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP RIPTION => TYPE:HD IP FIXED C.	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGT	Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALU F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I CABLE ENTRY: AS Each R/SONY/AXIS/PELCO	13 RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO 6 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6 PER REQUIRE; HARDWARE 2	85258090 IXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CE 779-1:2007, ZO 50529-1:2001; F 3: STAINLESS 85258020	36AAACH1 118B1ZD AGE E:25/30 FPS; 1 36AAACH1 118B1ZD PLY CIMFR(C ERTIFICATES. NE VAINT:EPOXY STEEL 36AAACH1 118B1ZD	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes
MENTI 84 DESC COMP VISIO 85 DESC INSTIT CERT CLAS POWI 86 DESC INFOR	IONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION SHALL BE AVAILABLE FIXED CAMERA SHALLABLE FIXED CAMERA SHALLABLE FIXED CAMERA SHALLABLE FIXED SHALL BE AVAILABLE FIXED CAMERA SHALLABLE FIXED CAMERA SHALLABLE FIXED CAMERA SHALLABLE INFORMATION:2MP, WITH MOTORIZED INDOOR (DOME) 2MP RIPTION => TYPE:HD IP DOME CAMERA SHALLABLE INDOOR SHALL BE AVAILABLE INDOOR SHALL	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENSTONING CONVIF COMPLIANT WITH POE 12811-CHERLAPALLY LPG PROOF ENCLOSURE; PART MATERIANCH) APPROVED FLAME PROOF, TECHNICAL SPECIFICATION: TO GAS GROUP:IIA, IIB, T6 IS/IEC600:NAL -01 NO. EXTERNAL -02 NOS.; 12811-CHERLAPALLY LPG AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S 12811-CHERLAPALLY LPG AMERA; MANUFACTURER:N/A; MANUFACT	Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALU F ALUMINA ELECTR 79-0:2004, INGRESS I CABLE ENTRY: AS Each J/SONY/AXIS/PELCO HEET ATTACHED. Each	13 RESOLUTION:1920X1080 P S PROTECTION:IP66; VIDEO 6 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH V 100N:EEX-D TYPE, IS/IEC600 P PROTECTION:IP66 IS/IEC6 PER REQUIRE; HARDWARE 2 //VERINT/HONEYWELL; MC	85258090 TIXELS HD; IM O FRAME RAT Y SHALL SUP ALID TEST CF 379-1:2007, ZO 30529-1:2001; F STAINLESS 85258020 DDEL NUMBER 85258020	36AAACH1 118B1ZD AGE 7E:25/30 FPS; 1 36AAACH1 118B1ZD PLY CIMFR(C ERTIFICATES. NE PAINT:EPOXY STEEL 36AAACH1 118B1ZD R:N/A; ADDIT 36AAACH1 118B1ZD	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes
MENTI 84 DESC COMF VISIO 85 DESC INSTIT CERT: CLAS: POWE 86 DESC INFOF 87 DESC DEVIG 88	Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE SN:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEITUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE FICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2; ER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP RIPTION => TYPE:HD IP FIXED C. EMATION:2MP, WITH MOTORIZED Indoor (Dome) 2MP RIPTION => TYPE:HD IP DOME C. E; DETAILED SPECIFICATION SH Fixed Camera FL50	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGTH OF LENGTH OF LENGTH OF LENGTH OF LENGTH CONVIF COMPLIANT WITH POE 12811-CHERLAPALLY LPG PROOF ENCLOSURE; PART MATERIANCH) APPROVED FLAME PROOF; TECHNICAL SPECIFICATION: TYGAS GROUP:IIA, IIB, T6 IS/IEC600; NAL -01 NO. EXTERNAL -02 NOS.; 12811-CHERLAPALLY LPG AMERA; MANUFACTURER:BOSCH ZOOM; AS PER SPECIFICATION S 12811-CHERLAPALLY LPG AMERA; MANUFACTURER:N/A; MEET ATTACHED. 12811-CHERLAPALLY LPG	Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALUI F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I CABLE ENTRY: AS Each I/SONY/AXIS/PELCO HEET ATTACHED. Each ODEL NUMBER:N/A	13 RESOLUTION:1920X1080 P S PROTECTION:1P66; VIDEO 6 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH V ION:EEX-D TYPE, IS/IEC600 P PROTECTION:1P66 IS/IEC6 PER REQUIRE; HARDWARE 2 //VERINT/HONEYWELL; MC 3 ; ADDITIONAL INFORMATI	85258090 IXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CE 709-1:2007, ZO 50529-1:2001; F STAINLESS 85258020 DDEL NUMBER 85258020 ON:IRF AND R 85258090	36AAACH1 118B1ZD AGE E:25/30 FPS; 1 36AAACH1 118B1ZD PLY CIMFR(C ERTIFICATES. NE NE NE NE NE NE NE NE NE NE NE NE NE	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes
MENTI 84 DESC COMP VISIO 85 DESC INSTI CLAS: POWI 86 DESC INFOR 87 DESC DEVIC 88	IONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAME! FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP RIPTION => TYPE:HD IP FIXED C. CMATION:2MP, WITH MOTORIZED Indoor (Dome) 2MP RIPTION => TYPE:HD IP DOME C. DE; DETAILED SPECIFICATION SH Fixed Camera FL50 RIPTION => IP/NETWORK CCTV;	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGT	Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALUI F ALUMINA ELECTR TYPE OF EX-PROTECT T9-0:2004, INGRESS I CABLE ENTRY: AS Each L'SONY/AXIS/PELCO HEET ATTACHED. Each CODEL NUMBER:N/A Each Each L'SONY/AXIS/PELCO HEET ATTACHED.	IS RESOLUTION:1920X1080 PS PROTECTION:1966; VIDEO 6 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH VION:EEX-D TYPE, IS/IEC600 PPROTECTION:1966 IS/IEC600 PROTECTION:1966 IS/IEC600 PROTECTION:1900 PROTECTION:1920X1080 PRO	85258090 IXELS HD; IM O FRAME RAT Y SHALL SUP ALID TEST CF 179-1:2007, ZO 10529-1:2001; F 2: STAINLESS 85258020 DDEL NUMBER 85258020 ON:IRF AND R 85258090 IXELS HD; IM	36AAACH1 118B1ZD AGE E:25/30 FPS; 1 36AAACH1 118B1ZD PLY CIMFR(C RTIFICATES. NE PAINT:EPOXY STEEL 36AAACH1 118B1ZD R:N/A; ADDIT 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes EKUP Yes
MENTI 84 DESC COMP VISIO 85 DESC INSTI CLAS: POWI 86 DESC INFOR 87 DESC DEVIC 88	IONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE SN:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAME: IUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2; ER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP RIPTION => TYPE:HD IP FIXED C. MATION:2MP,WITH MOTORIZED Indoor (Dome) 2MP RIPTION => TYPE:HD IP DOME C. E; DETAILED SPECIFICATION SH Fixed Camera FL50 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGT	Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALUI F ALUMINA ELECTR TYPE OF EX-PROTECT T9-0:2004, INGRESS I CABLE ENTRY: AS Each L'SONY/AXIS/PELCO HEET ATTACHED. Each CODEL NUMBER:N/A Each Each L'SONY/AXIS/PELCO HEET ATTACHED.	IS RESOLUTION:1920X1080 PS PROTECTION:1966; VIDEO 6 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH VION:EEX-D TYPE, IS/IEC600 PPROTECTION:1966 IS/IEC600 PROTECTION:1966 IS/IEC600 PROTECTION:1900 PROTECTION:1920X1080 PRO	85258090 IXELS HD; IM O FRAME RAT Y SHALL SUP ALID TEST CF 179-1:2007, ZO 10529-1:2001; F 2: STAINLESS 85258020 DDEL NUMBER 85258020 ON:IRF AND R 85258090 IXELS HD; IM	36AAACH1 118B1ZD AGE E:25/30 FPS; 1 36AAACH1 118B1ZD PLY CIMFR(C RTIFICATES. NE PAINT:EPOXY STEEL 36AAACH1 118B1ZD R:N/A; ADDIT 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes EKUP Yes
MENTI 84 DESC COMF VISIO 85 DESC INSTIT CERTI CERTI CERTI CLAS: POWE 86 DESC INFOF 87 DESC DEVIG 88 DESC OMF VISIO 89 DESC	IONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S. R:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2; ER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP RIPTION => TYPE:HD IP FIXED C. EMATION:2MP, WITH MOTORIZED Indoor (Dome) 2MP RIPTION => TYPE:HD IP DOME C. E; DETAILED SPECIFICATION SH Fixed Camera FL50 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S. R:REQUIRED; CAMERA SHALL BE 3CORE 4SQ MM CBL,ARM,1.1KV,CU, RIPTION => SUPPLY OF THE FO	TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGTH	Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALUI F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I CABLE ENTRY: AS Each I/SONY/AXIS/PELCO HEET ATTACHED. Each ODEL NUMBER:N/A Each MERA; RECORDING S:12-50 MM; INGRESS Meters CONDUCTOR, XLPI	13 RESOLUTION:1920X1080 PS PROTECTION:1P66; VIDEO 6 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH VION:EEX-D TYPE, IS/IEC600 PPROTECTION:1P66 IS/IEC6 PER REQUIRE; HARDWARE 2 //VERINT/HONEYWELL; MC 3 ; ADDITIONAL INFORMATI 14 RESOLUTION:1920X1080 PS PROTECTION:1P66; VIDEO 4000 E INSULATED, PVC SHEA*	85258090 IXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CF 7079-1:2007, ZO 50529-1:2001; F E: STAINLESS 85258020 DDEL NUMBEI 85258020 ON:IRF AND I 85258090 IXELS HD; IM D FRAME RAT	36AAACH1 118B1ZD AGE E:25/30 FPS; I 36AAACH1 118B1ZD PLY CIMFR(C 36TIFICATES. NE AINT:EPOXY STEEL 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes EKUP Yes NIGHT Yes
MENTI 84 DESC COMF VISIO 85 DESC INSTIT CERTI CERTI CLAS: POWE 86 DESC INFOF 87 DESC DEVIC 88 DESC OMF VISIO 89 DESC	IONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S. R:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2; ER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP RIPTION => TYPE:HD IP FIXED C. EMATION:2MP, WITH MOTORIZED Indoor (Dome) 2MP RIPTION => TYPE:HD IP DOME C. E; DETAILED SPECIFICATION SH Fixed Camera FL50 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S. R:REQUIRED; CAMERA SHALL BE 3CORE 4SQ MM CBL,ARM,1.1KV,CU, RIPTION => SUPPLY OF THE FO	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGT	Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALUI F ALUMINA ELECTR YPE OF EX-PROTECT 79-0:2004, INGRESS I CABLE ENTRY: AS Each I/SONY/AXIS/PELCO HEET ATTACHED. Each ODEL NUMBER:N/A Each MERA; RECORDING S:12-50 MM; INGRESS Meters CONDUCTOR, XLPI	13 RESOLUTION:1920X1080 PS PROTECTION:1P66; VIDEO 6 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH VION:EEX-D TYPE, IS/IEC600 PPROTECTION:1P66 IS/IEC6 PER REQUIRE; HARDWARE 2 //VERINT/HONEYWELL; MC 3 ; ADDITIONAL INFORMATI 14 RESOLUTION:1920X1080 PS PROTECTION:1P66; VIDEO 4000 E INSULATED, PVC SHEA*	85258090 IXELS HD; IM D FRAME RAT Y SHALL SUP ALID TEST CF 7079-1:2007, ZO 50529-1:2001; F E: STAINLESS 85258020 DDEL NUMBEI 85258020 ON:IRF AND I 85258090 IXELS HD; IM D FRAME RAT	36AAACH1 118B1ZD AGE E:25/30 FPS; I 36AAACH1 118B1ZD PLY CIMFR(C 36TIFICATES. NE AINT:EPOXY STEEL 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes EKUP Yes NIGHT Yes
MENTI 84 DESC COMP VISIO 85 DESC INSTIT CLAS: POWI 86 DESC INFOR 87 DESC DEVIC 88 DESC DEVIC 89 DESC DESC DESC DESC DESC DESC DESC DES	IONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAME! FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE SIFICATION:ZONE I AND ZONE 2; DER COATING; EARTHLING:INTER Fixed camera motorized zoom2MP RIPTION => TYPE:HD IP FIXED C. MATION:2MP, WITH MOTORIZED Indoor (Dome) 2MP RIPTION => TYPE:HD IP DOME C. DE; DETAILED SPECIFICATION SH Fixed Camera FL50 RIPTION => IP/NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE S N:REQUIRED; CAMERA SHALL BE 3CORE 4SQ MM CBL,ARM,1.1KV,CU, RIPTION => SUPPLY OF THE FO TO98 PART-1 AND AS PER SPECIE OPTICAL FIBER CABLE,SM,12 CORE	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGT	Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALU	13 RESOLUTION:1920X1080 P S PROTECTION:1P66; VIDEO 6 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH V 10N:EEX-D TYPE, IS/IEC600 P PROTECTION:1P66 IS/IEC6 PER REQUIRE; HARDWARE 2 //VERINT/HONEYWELL; MC 3 ; ADDITIONAL INFORMATI 14 RESOLUTION:1920X1080 P S PROTECTION:1P66; VIDEO 4000 E INSULATED, PVC SHEACX 4 SQMM 2000	85258090 IXELS HD; IM O FRAME RAT Y SHALL SUP ALID TEST CE 779-1:2007, ZO 00529-1:2001; F E: STAINLESS 85258020 DDEL NUMBER 85258020 IXELS HD; IM O FRAME RAT THED STEEL	36AAACH1 118B1ZD AGE E:25/30 FPS; 1 36AAACH1 118B1ZD PLY CIMFR(C ERTIFICATES, NE PAINT:EPOXY STEEL 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD AGE E:25/30 FPS; N 36AAACH1 118B1ZD AGE E:25/30 FPS; N 36AAACH1 118B1ZD AGE E:25/30 FPS; N	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes EKUP Yes Ves CABLES AS Yes
MENTI 84 DESC COMP VISIO 85 DESC INSTIT CLAS: POWE 86 DESC DEVIC 88 DESC COMP VISIO 89 DESC PER IS 90 DESC	IONED IN THE TENDER ATTACHN Fixed Camera FL12 RIPTION => IP/ NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE SN:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAME: FUTE OF MINING AND FUEL RESE FICATION SHALL BE AVAILABLE FIXED FOR THE FOR THE FOR THE FOR THE FOR THE FIXED CAMERA SHALL BE FIXED CAMERA SHALL BE AVAILABLE FIXED CAMERA SHALL BE AVAILABLE FIXED CAMERA SHALL BE FIXED CAMERA SHALL BE FIXED STORM SPECIFICATION SH FIXED CAMERA SHALL BE RIPTION => TYPE:HD IP DOME CAMERA SHALL BE FIXED CAMERA SHALL BE SIFICATION SH FIXED CAMERA SHALL BE FIXED CAMERA SHALL BE CORE 4SQ MM CBL,ARM,1.1KV,CU, RIPTION => SUPPLY OF THE FOR TOOR SH FOR THE FOR	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGT	Each MERA; RECORDING S:2.8-12 MM; INGRES Each RIAL:DIE CAST ALU	13 RESOLUTION:1920X1080 P S PROTECTION:1P66; VIDEO 6 MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH V 10N:EEX-D TYPE, IS/IEC600 P PROTECTION:1P66 IS/IEC6 PER REQUIRE; HARDWARE 2 //VERINT/HONEYWELL; MC 3 ; ADDITIONAL INFORMATI 14 RESOLUTION:1920X1080 P S PROTECTION:1P66; VIDEO 4000 E INSULATED, PVC SHEACX 4 SQMM 2000	85258090 IXELS HD; IM O FRAME RAT Y SHALL SUP ALID TEST CE 779-1:2007, ZO 00529-1:2001; F E: STAINLESS 85258020 DDEL NUMBER 85258020 IXELS HD; IM O FRAME RAT THED STEEL	36AAACH1 118B1ZD AGE E:25/30 FPS; 1 36AAACH1 118B1ZD PLY CIMFR(C ERTIFICATES, NE PAINT:EPOXY STEEL 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD AGE E:25/30 FPS; N 36AAACH1 118B1ZD AGE E:25/30 FPS; N 36AAACH1 118B1ZD AGE E:25/30 FPS; N	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes EKUP Yes Ves CABLES AS Yes
MENTI 84 DESC COMP VISIO 85 DESC INSTIT CLAS: POWE 86 DESC INFORM 87 DESC DEVIC 88 DESC COMP VISIO 89 DESC PER IS 90 DESC TEND 91 DESC	IONED IN THE TENDER ATTACHY Fixed Camera FL12 RIPTION => IP/NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE SN:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI FUTE OF MINING AND FUEL RESEFICATION SHALL BE AVAILABLE SIFICATION: SHALL BE AVAILABLE SIFICATION: ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER FIXED CAMERA SHALL BE SIFICATION: TYPE:HD IP FIXED C. MATION: 2MP, WITH MOTORIZED INDOOR (DOME) 2MP RIPTION => TYPE:HD IP DOME C. CE: DETAILED SPECIFICATION SH FIXED CAMERA SHALL BE SIFICATION: SIP/NETWORK CCTV; RESSION: H.264/MPEG-4, TRIPLE SN: REQUIRED; CAMERA SHALL BE SICONE SOME SUPPLY OF THE FOR TOPS PART I AND AS PER SPECIFICATION => SUPPLY OF THE FOR TOPS PART I AND AS PER SPECIFICATION => PART NAME:OFC CAMERA SHALL BE SIPION => PART NAME:OFC CAMERA SHALL SIPION => SUPPLY AND LAYING S	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGY ONVIF COMPLIANT WITH POE 12811-CHERLAPALLY LPG PROOF ENCLOSURE; PART MATELE ARCH) APPROVED FLAME PROOF, THE STREET OF THE STREET ON STREET OF THE STREET ON STREET OF THE STREET ON STREET OF THE STREET ON THE STREET OF THE STREET ON THE STREET OF THE STREET OF THE STREET ON THE	Each RIAL:DIE CAST ALU RIAL:DI	IS RESOLUTION:1920X1080 PS PROTECTION:1966; VIDEO MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH VION:EEX-D TYPE, IS/IEC600 PPROTECTION:1966 IS/IEC6 PER REQUIRE; HARDWARE VVERINT/HONEYWELL; MO RESOLUTION:1920X1080 PS PROTECTION:1966; VIDEO 4000 E INSULATED, PVC SHEAT X 4 SQMM 2000 IPMENT NAME:CCTV SYST 2000 CKET:POLYVINYL CHLOR	85258090 IXELS HD; IM O FRAME RAT Y SHALL SUP ALID TEST CF 079-1:2007, ZO 0529-1:2001; F E: STAINLESS 85258020 DDEL NUMBER 85258020 ON:IRF AND R O FRAME RAT THED STEEL THED STEEL TEM; EQUIPMI 995424 IDE2. ARMOU	36AAACH1 118B1ZD AGE E:25/30 FPS; 1 36AAACH1 118B1ZD PLY CIMFR(C RTIFICATES. NE PAINT:EPOXY STEEL 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD AGE E:25/30 FPS; N 36AAACH1 118B1ZD AGE E:25/30 FPS; N 36AAACH1 118B1ZD ARMOURED 36AAACH1 118B1ZD ARMOURED 36AAACH1 118B1ZD ARMOURED 36AAACH1 118B1ZD RIMGEGALVA	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes EKUP Yes CABLES AS Yes VA; AS PER Yes INIZED IRON
MENTI 84 DESC COMP VISIO 85 DESC INSTIT CLAS: POWE 86 DESC INFORM 87 DESC DEVIC 88 DESC COMP VISIO 89 DESC PER IS 90 DESC TEND 91 DESC	IONED IN THE TENDER ATTACHY Fixed Camera FL12 RIPTION => IP/NETWORK CCTV; RESSION:H.264/MPEG-4, TRIPLE SN:REQUIRED; CAMERA SHALL BE FLP Enclosur Fixed Camera F12 RIPTION => PART NAME:FLAMEI FUTE OF MINING AND FUEL RESEFICATION SHALL BE AVAILABLE SIFICATION: SHALL BE AVAILABLE SIFICATION: ZONE 1 AND ZONE 2; DER COATING; EARTHLING:INTER FIXED CAMERA SHALL BE SIFICATION: TYPE:HD IP FIXED C. MATION: 2MP, WITH MOTORIZED INDOOR (DOME) 2MP RIPTION => TYPE:HD IP DOME C. CE: DETAILED SPECIFICATION SH FIXED CAMERA SHALL BE SIFICATION: SIP/NETWORK CCTV; RESSION: H.264/MPEG-4, TRIPLE SN: REQUIRED; CAMERA SHALL BE SICONE SOME SUPPLY OF THE FOR TOPS PART I AND AS PER SPECIFICATION => SUPPLY OF THE FOR TOPS PART I AND AS PER SPECIFICATION => PART NAME:OFC CAMERA SHALL BE SIPION => PART NAME:OFC CAMERA SHALL SIPION => SUPPLY AND LAYING S	MENTS. 12811-CHERLAPALLY LPG TYPE:DAY AND NIGHT FIXED CATREAM; FOCAL LENGTH OF LENGT	Each RIAL:DIE CAST ALU RIAL:DI	IS RESOLUTION:1920X1080 PS PROTECTION:1966; VIDEO MINUM ALLOY LM6; PART ICAL ENCLOSURE WITH VION:EEX-D TYPE, IS/IEC600 PPROTECTION:1966 IS/IEC6 PER REQUIRE; HARDWARE VVERINT/HONEYWELL; MO RESOLUTION:1920X1080 PS PROTECTION:1966; VIDEO 4000 E INSULATED, PVC SHEAT X 4 SQMM 2000 IPMENT NAME:CCTV SYST 2000 CKET:POLYVINYL CHLOR	85258090 IXELS HD; IM O FRAME RAT Y SHALL SUP ALID TEST CF 079-1:2007, ZO 0529-1:2001; F E: STAINLESS 85258020 DDEL NUMBER 85258020 ON:IRF AND R O FRAME RAT THED STEEL THED STEEL TEM; EQUIPMI 995424 IDE2. ARMOU	36AAACH1 118B1ZD AGE E:25/30 FPS; 1 36AAACH1 118B1ZD PLY CIMFR(C RTIFICATES. NE PAINT:EPOXY STEEL 36AAACH1 118B1ZD MFZ LENS PIC 36AAACH1 118B1ZD AGE E:25/30 FPS; N 36AAACH1 118B1ZD AGE E:25/30 FPS; N 36AAACH1 118B1ZD ARMOURED 36AAACH1 118B1ZD ARMOURED 36AAACH1 118B1ZD ARMOURED 36AAACH1 118B1ZD RIMGEGALVA	Yes NIGHT Yes ENTRAL ALSO PESO POLYESTER Yes IONAL Yes EKUP Yes CABLES AS Yes VA; AS PER Yes INIZED IRON

93	CONST OF CABLE TRENCH	12811-CHERLAPALLY LPG	Meters	4000	995433	36AAACH1 118B1ZD	Yes
	CRIPTION => UNDERGROUND-CAL DEPTH, CABLE ROUTE MARKER-G		ND FILLING, BRICK	LAYING, BACKFILLING AN	D COMPACTI	ON, 1800 MM V	VIDE, 1000
94	NETWORK SWITCH,MANAGED,8 PORT	12811-CHERLAPALLY LPG	Each	5	84733091	36AAACH1 118B1ZD	Yes
DESC	CRIPTION => NETWORK SWITCH;	NUMBER OF PORTS:8; APPLICAT	ION:OUTDOOR				
5	NETWORK SWITCH, MANAGED 12 PORT	12811-CHERLAPALLY LPG	Set	4		36AAACH1 118B1ZD	Yes
/OLT	:RIPTION => SWITCH,NETWORK; AGE:N/A; MANUFACTURER:N/A; OWED						
96	JUNCTION BOX	12811-CHERLAPALLY LPG	Each	4	995461	36AAACH1 118B1ZD	Yes
DESC	RIPTION => SUPPLY AND INSTAI	LLATION OF WEATHER PROOF JU	JNCTION BOX AS P	ER TENDER DOCUMENT.			
7	FLP JUNCTION BOX	12811-CHERLAPALLY LPG	Each	30	995461	36AAACH1 118B1ZD	Yes
VITH TEE AMEN CLAN EART TAKE	PRIPTION SOUPPLY, INSTALL AITERMINALS WITH TOP AND BOT LHARDWARE, EARTHING BOLTS, IDMENTS AND AS PER THE DIRECTORY TO THE DIRECTORY BOX SHATEL AND AS PER THE DIRECTORY BOX SHATEL AND AS SHATEL AND AS AND A	TOM TYPE CABLE ENTRIES, LM, NEOPRENE GASKET, SUITABLE CTION OF ENGINEER-IN-CHARGE DMAKE OR EQUIVALENT SHAL BE COMPLETE WITH REQUII IONS OF THIS JUNCTION BOX FR	6 CONSTRUCTION, FOR GROUP II A AN JUNCTION BOX SH L BE PROVIDED FO RED SHORTING LIN OM ENGINEER-IN-0	IP 66 CLASS PROTECTION, 'ND II B, CCOE CMRI CERTIF HALL INCLUDE NECESSARY OR ALL JUNCTION BOX. JUNKS FOR LOOP IN/LOOP OUT CHARGE. 2 NO 1 1/2 INCH NI	TEMPERATUR TED AS PER IS TERMINALS TOTION BOX S OF CABLES. PT (FOR 18 P	E CLASS T3, S -2148 WITH L. FOR SUITABL SHALL HAVE E CONTRACTOF I SQ.MM CABI	TAINLESS ATEST E ENTRIES. EXTERNAL SHALL E), 4 NO 3/4
8	GI Pole 8 MT	12811-CHERLAPALLY LPG	Each	24		36AAACH1 118B1ZD	Yes
	CRIPTION => PART NAME:CAMER ENDER DOCUMENT	A POLE; PART NUMBER:N/A; MA	NUFACTURER:N/A;	; EQUIPMENT NAME:CCTV S	SYSTEM; EQU	IPMENT MODI	EL:N/A; AS
9	HARD DISK DRIVE per TB cost	12811-CHERLAPALLY LPG	Each	60		36AAACH1 118B1ZD	Yes
	CRIPTION => SUPPLY, INSTALLAT IR TECHNICAL SPECIFICATION.	TION, TESTING AND COMMISSION	NING OF HDD/NAS I	FOR STORAGE OF DATA FR	OM CAMERA	FOR A PERIOD	OF 90 DAY
00	55 inch LED TV	12811-CHERLAPALLY LPG	Each	3	998734	36AAACH1 118B1ZD	Yes
DESC	CRIPTION => SUPPLY AND INSTAI	LLATION OF 55 INCH LED TV AS	PER SPECIFICATION	N ATTACHED.			
)1	VIDEO MANAGEMENT SOFTWARE	12811-CHERLAPALLY LPG	Each	44	998733	36AAACH1 118B1ZD	Yes
ESC	CRIPTION => MANAGEMENT SOF	TWARE: SUPPLY AND INSTALLA	TION OF CCTV VMS	S SOFTWARE FOR CAMERA	S LICENSE.		
)2	INSTLN COMMNG TESTING CCTV SYS	12811-CHERLAPALLY LPG	Lump Sum	1		36AAACH1 118B1ZD	Yes
	CRIPTION => INSTALLATION AND CHORD IN THE TENDER ATTACH		TEM AND ASSOCIA	TED ACCESSORIES AS PER	THE TERMS A	AND CONDITIO	NS
03	CAMC FOR CCTV SYSTEM PER YEAR	12731-RAJAHMUNDARY LPG	Year	5		37AAACH1 118B1ZB	Yes
DESC	CRIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSI	VE AMC AFTER EX	PIRY OF WARRANTY PERIC	D FOR SUPPL	IED SYSTEM.	
04	CAMC FOR CCTV SYSTEM PER YEAR	12829-WARANGAL LPG PLANT	Year	5		36AAACH1 118B1ZD	Yes
ESC	CRIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSI	VE AMC AFTER EX	PIRY OF WARRANTY PERIC	D FOR SUPPL	IED SYSTEM.	
)5	CAMC FOR CCTV SYSTEM PER YEAR	12921-KONDAPALLI LPG	Year	5		37AAACH1 118B1ZB	Yes
ESC	CRIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSI	VE AMC AFTER EX	PIRY OF WARRANTY PERIC	D FOR SUPPL	IED SYSTEM.	
06	CAMC FOR CCTV SYSTEM PER YEAR	12935-ANANTAPUR LPG PLANT	Year	5		37AAACH1 118B1ZB	Yes
	CRIPTION => CAMC FOR SURVEIL	LANCE SYSTEM: COMPREHENSI	VE AMC AFTER EX	PIRY OF WARRANTY PERIC	D FOR SUPPL	IED SYSTEM.	
ESC							
DESC 07	CAMC FOR CCTV SYSTEM PER YEAR	12811-CHERLAPALLY LPG	Year	5		36AAACH1 118B1ZD	Yes





	TENDER INSTRUCTIONS						
SI.No.	Description	Attached File	Set Value	Supporting Doc. Req'd			
1	TENDER INSTRUCTIONS	1. TENDER INSTRUCTIONS - CCTV LPG.pdf	-	No			
2	PRE QUALIFICATION CRITERIA	TENDER PQC.pdf	-	No			
3	PURCHASE PREFERENCE	PP_Indivisible_Works Contract_Apr 2021.pdf	-	No			



HINDUSTAN PETROLEUM CORPORATION LIMITED

(A GOVERNMENT OF INDIA ENTERPRISE)

CENTRAL PROCUREMENT ORGANISATION-MARKETING

9TH FLOOR, A WING – MARATHON FUTUREX BUILDING, LOWER PAREL, MUMBAI - 400 013 PHONE # 022-23030076, WORKING TIME: 9.00 AM TO 5.00 PM (EXCEPT ON SATURDAY/SUNDAY/PUBLIC HOLIDAYS)

Public e-Tender No - 21000471-HD-10157
INTEGRATED VIDEO SURVEILLANCE SYSTEM (CCTV) AT 44 LPG
INSTALLATIONS

DUE DATE FOR SUBMISSION OF ONLINE BIDS: 24.09.2021 @ 1500 Hrs.

Contact us- IN VIEW OF LOCKDOWN, HELPDESK IS NOW AVAILABLE WITH LIMITED RESOURCES FROM 1000 HRS TO 1800 HRS ON MOB NO 8080429356 or 7666971998 or 9082727597 or 8291666749 or 9004219971. ALTERNATELY VENDOR MAY SEND MAIL ON eprochelpdesk@mail.hpcl.co.in.



TENDER INSTRUCTIONS & PRE-QUALIFICATION CRITERIA (PQC)

e-TENDER

This is an e tender and completed tenders in all respect should be submitted on-line only at website https://etender.hpcl.co.in by the tender due date / time. Bids (Unpriced Bid & Priced Bid) shall be opened on-line. As this is an e-tender, bidders may witness the opening of tender at all stages of tender processing by remote log in into the above portal at the comfort of their offices.

For technical queries, please contact:

Mr Gopakumar Balakrishnan

DGM – HSE, LPG HQO

Email: gbala@hpcl.in Mobile No. 8547170186 Mr S. Theiva.

Senior Manager - Safety, LPG-HQO

Email: stheiva@hpcl.in
Mobile No. 8860050055

For commercial queries, please contact:

Ms Pallavi Jhingran DGM-Category Management Hindustan Petroleum Corporation Ltd CPO-Marketing

E-mail: pallavijhingran@hpcl.in

Ph# 022-23030303

Ms Radhika Mahto Sr Manager – Category Management Hindustan Petroleum Corpn. Ltd CPO-Marketing.

E-mail: radhikamahto@hpcl.in

Ph# 022-23030081

EARNEST MONEY DEPOSIT (EMD): NIL

EMD will not be applicable for this tender. However, you are required to submit the duly signed and sealed "Bid Security Declaration" on your letter head along with your offer. Bid Security Declaration format is attached.

Kindly note that wherever Retention Money has been referred in the tender, it will be calculated at <u>3% instead of 10%</u>. Similarly, PBG & CPBG amount shall also be read as 3% instead of 10%.

Completed tenders in all respect should be submitted on-line at website https://etender.hpcl.co.in by the tender due date / time. Unpriced (Technical) bids shall be opened on-line

As this is e-tender bidders may witness the opening of tender at all stages of tender processing, by remote logging into the above portal at the comfort of their offices.



Existing HPCL Vendors:

Please log in at site (https://etender.hpcl.co.in) and respond to the tender. Please note that this is an on line tender and on line response submitted at site (https://etender.hpcl.co.in) shall only be accepted. For submitting on line response Digital Certificate / Signatures (Class III) shall be mandatory. In case, you are logging in for the first time please ensure to upload your Digital certificate. The process for same is listed in the Help link after logging in. PLEASE LOGIN WITH YOUR EIGHT DIGIT JDE VENDOR CODE AS GIVEN IN THE SUBJECT ABOVE AND CORRESPONDING BILL TRACKING SYSTEM (BTS) PASSWORD TO BID FOR THE TENDER. In case of any difficulty in logging or in case you do not have the BTS password, please send mail to eprochelpdesk@mail.hpcl.co.in OR please call us at **022-41146666**. The helpdesk support is available 6 days a week from **8AM to 8 PM** (except public holidays) Pls. refer to help link after logging in, in case you are new to e-Tender.

Non HPCL Registered Vendors:

In the portal (https://etender.hpcl.co.in) you have to bid thru temporarily Registered User option by selecting the radio button: New Users Click here for temporary registration.

Check list for Bidders:

1. Following documents are to be uploaded as a part of Pre-qualification of Bid:

Supporting documents towards bidder's qualification criteria (work orders, completion certificates, and turnover statements duly notarized)

2. FOLLOWING DOCUMENTS ARE TO BE UPLOADED AS A PART OF TECHNICAL BID:

- Duly filled, signed and stamped <u>Integrity Pact</u> document also signed by two witnesses. Non submission of this document shall make the bid liable for rejection.
- Duly filled Declaration for non-black listing
- o Duly filled Declaration for relatives in HPCL.
- o Duly filled Bid Security Declaration
- Duly filled, Deviation template provided in the portal. If there are no deviations, then nil deviation radio button shall be selected. <u>Deviations mentioned by the bidders</u> <u>anywhere else in the tender other than in Deviation Template provided in the e-tender</u> <u>portal, shall not be considered. No further correspondence on this shall be entertained</u> <u>at any stage.</u>
- o Agreed terms and conditions sheet.
- o Various statutory docs like GST Registration certificate for Indian Bidders.
- Additional Data as sought in the tender documents

Unpriced bid containing rates shall make the bid liable for rejection.



The Bid and all supporting documents submitted and all correspondence whatsoever exchanged by Vendor and HPCL shall be in English language only.

Pre-Bid meeting is scheduled for this tender. Details of the Meeting are attached as Annexure I.

As per extant government guidelines, it shall be mandatory for all sellers providing Goods and Services to be registered on GeM and obtain a unique GeM Seller ID at the time of placement of order / acceptance of contract. This ID shall be incorporated in the Purchase Order.

In this regard, please ensure that your firm is registered on GeM (www.gem.gov.in) and submit the GeM seller ID along with your bid. For further details regarding the procedure to obtain GeM seller ID, please contact GeM help desk.

BID EVALUATION CRITERIA:

This tender is floated on a Schedule wise basis.

Schedule 1 - NORTH ZONE

Schedule 2 – NORTH WEST ZONE

Schedule 3 - SOUTH ZONE

Schedule 4 - NORTH CENTRAL ZONE

Schedule 5 - EAST ZONE

Schedule 6 - WEST ZONE

Schedule 7 – SOUTH CENTRAL ZONE

Participation in all the Schedules is not mandatory i.e. the bidder can quote for any one or all the schedules, as preferred by them, subject to meeting stipulated Bid Qualification Criteria.

Bids will be evaluated on **SCHEDULEWISE LOWEST NETT DELIVERED COST TO HPCL BASIS**. Quoted rate shall be inclusive of all components viz. packing charges, loading unloading charges, insurance, Third party Inspection Charges, transportation to site etc. if any.

Bidder should quote applicable rate of GST as per GOI notification against each line item of both the schedules in the space provided in online bid.



ORDER DISTRIBUTION CRITERIA:

Purchase Order for 100% of the tender quantity of a particular schedule will be awarded to the lowest bidder, subject to GOI guidelines pertaining to Class I local supplier. Since job under this tender is a Works Contract, Purchase preference to MSE Vendors will not be applicable. Pls. refer enclosed document under 'Purchase Preference'. Job under this tender is indivisible.

Pls. note that only Class I and Class II local suppliers will be eligible to submit bids for this tender. However, preference as per PP-LC will be given only to Class-I local supplier. Class-II local supplier will not get any purchase preference.

<u>Undertaking as per Attachment 1 has to be mandatorily submitted by all the participating bidders.</u>

Traders and Agents shall not be allowed to avail the benefits extended under Purchase Preference Policy.

PO for CAMC for 5 years post warranty period shall be released separately.

For more details on order distribution, pls. refer the Bid Qualification Criteria.

FIRM RATES:

The rates shall remain unchanged till the expiry of Contract and no Revision of Rates shall be entertained from parties for any reason. No Escalation / De-escalation of rates are applicable.

VALIDITY OF OFFER:

The offer shall be valid for a period of 120 days from the due date/ extended due date of opening of the un-priced bid. Corporation reserves the right to take action as deemed fit, including putting the bidder under suspension / holiday, in case of withdrawal of Offer at any stage, non-acceptance of LOI / PO or any other breach of Tender terms and conditions.

BIDDER FROM A COUNTRY THAT SHARES LAND BORDER WITH INDIA

Orders issued by the Government of India restricting procurement from bidders of certain countries which shares a land border with India [Rule 144(xi) of the General Financial Rules (GFR) 2017] shall apply to this Tender.

1) Any bidder from a country which shares a land border with India (ref. https://mea.gov.in/india-and-neighbours.htm), excluding countries as listed in the website



of Ministry of External Affairs (ref. http://meadashboard.gov.in/indicators/92), to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects – hereinafter called 'Restricted Countries', shall be eligible to bid in this tender only if the bidder is registered (ref. https://dipp.gov.in/sites/default/files/Revised-Application-Format-for-Registration-of-Bidders-15Oct2020.pdf) with the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT). The bidders shall enclose certificate in this regard in the Bid Form.

- 2) "Bidder" (including the term 'Bidder', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- 3) "Bidder from such Restricted Countries" for the purpose of this clause means:
- (a) An entity incorporated, established, or registered in such a country; or
- (b) A subsidiary of an entity incorporated, established, or registered in such a country; or
- (c) An entity substantially controlled through entities incorporated, established, or registered in such a country; or
- (d) An entity whose beneficial owner is situated in such a country; or
- (e) A natural person who is a citizen of such a country.
- 4) The beneficial owner for the purpose of (3) above shall be as under:
- (a) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.
- (b) Explanation-
- (i) "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company.
- (ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership.
- (iii) In case of an incorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
- (iv) Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official.
- (v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.



(vi) An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

PLANNING AND DESIGNING IN PURVIEW OF VULNERABILITY ATLAS OF INDIA

Vulnerability Atlas of India (VAI) is a comprehensive document which provides existing hazard scenario for the entire country and presents the digitized State/UT - wise hazard, maps with respect to earthquakes, winds and floods for district-wise identification of vulnerable areas. It also includes additional digitized maps for thunderstorms, cyclones and landslides. The main purpose of this Atlas is its use for disaster preparedness and mitigation at policy planning and project formulation stage.

This Atlas is one of its kind single point source for the various stakeholders including policy makers, administrators, municipal commissioners, urban managers, engineers, architects, planners, public etc. to ascertain proneness of any city/location/site to multi-hazard which includes earthquakes, winds, floods thunderstorms, cyclones and landslides. While project formulation, approvals and implementation of various urban housing, buildings and infrastructures schemes, this Atlas provides necessary information for risk analysis and hazard assessment.

The Vulnerability Atlas of India has been prepared by Building Materials and Technology Promotion Council under Ministry of Housing and Urban Affairs, Government of India and available at their website www.bmtpc.org.

It is mandatory for the bidders to refer Vulnerability Atlas of India for multi-hazard risk assessment and include the relevant hazard proneness specific to project location while planning and designing the project in terms of:

- i. Seismic zone (II to V) for earthquakes
- ii. Wind velocity (Basic Wind Velocity: 55, 50, 47, 44, 39 & 33 m/s)
- iii. Area liable to floods and Probable max. surge height
- iv. Thunderstorms history
- v. Number of cyclonic storms / severe cyclonic storms and max sustained wind specific to coastal region
- vi. Landslides incidences with Annual rainfall normal
- vii. District wise Probable Max. Precipitation

PAYMENT TERMS

Vendors have been facilitated to submit digitally signed invoices through the Vendor Bill Tracking System (BTS) Portal effective 01.10.2020. Pls. refer the user manual outlining the process hosted on BTS portal for further details.

Payments will be made against bills certified by the HPCL Engineer-in-Charge/Site-in-Charge within 15 days from the date of receipt of the bill and all other related documents in line with the timelines mentioned in this Tender Document.



Loading Factor for Deviations:

Following method will be followed for evaluation of Lowest Bidder (L1) for deviations raised by any Bidder against delivery period & payment terms, provided these deviations are not withdrawn during Technical Evaluation stage:

Deviation against Delivery Period: In case any bidder does not accept tender delivery period and mentions delivery period which is more than the stipulated delivery period and if the same is being accepted by HPCL, for evaluation purpose only, the bidder's rate shall be loaded as per Price Reduction clause mentioned in General Terms and Conditions of this tender.

Payment Terms: If bidders raise deviation against payment terms and if the same is being accepted by HPCL, interest for early payment i.e. PLR + 1 % will be loaded against the quoted rate to arrive at lowest bidder. Rate of PLR prevailing at the time of evaluation will be considered.

Technical Bid containing rates shall make the bid liable for rejection for all bidders.

HPCL reserves the right to solicit documents/clarifications at any stage of the tendering process. HPCL also reserves the right to seek clarification on taxes (GST) quoted by the bidders and to correct/load appropriate tax rates as per extant Govt. of India Regulations and evaluate bids accordingly.

REVERSE AUCTION

HPCL reserves the right to conduct **Reverse Auction** (RA) for this tender. Bidders are requested to confirm willingness to participate in reverse auction. Please note that non-acceptance of participation in reverse auction may lead to rejection of bids without any further evaluation.

Reverse Auction will be conducted on Net Delivered Cost Basis (i.e. excluding GST). If the GST quoted by all the bidders is same, then Reverse Auction will be conducted on Gross Delivered Cost Basis (i.e. Including GST).

RA / Price Bid Opening will be done in the following sequence:

Schedule 1 - NORTH ZONE

Schedule 2 - NORTH WEST ZONE

Schedule 3 - SOUTH ZONE

Schedule 4 - NORTH CENTRAL ZONE

Schedule 5 - EAST ZONE



Schedule 6 - WEST ZONE

Schedule 7 – SOUTH CENTRAL ZONE

Pls. refer Bid Qualification Criteria for further details.

If the rate of GST quoted by the vendor is found to be lower than that of the actual rate of GST at the time of placing purchase order, PO will be placed with actual rate of GST by deducting the differential increase in amount of GST (i.e. difference between actual GST rate and vendor's quoted rate of GST) from the basic cost of bidder. However, total delivered amount will be kept same as quoted by the vendor.

Reverse Auction will be conducted only in case of two or more techno-commercially qualified vendors are available after Techno-Commercial Evaluation of all the bids submitted against this tender. If two or more techno-commercially qualified vendors are not available, price bids will be opened on normal mode and L1 will be finalised. Hence vendors are requested to quote their most competitive price in the online price bid.

Verification of Original Documents:

All the participating bidders shall provide copies of all the necessary documents along with the bid. However, all the bidders or their authorized representatives are required to be present at HPCL Office on the informed dates along with the original documents submitted for Bid Qualification-Financial /Technical and other techno-commercial documents for the verification/clarification by HPCL. Offers of Vendors who fail to submit the Original documents on demand shall be liable for rejection.

<u>Grievance Redressal Mechanism</u>: Details of this grievance redressal mechanism is available on the Corporation's Website- <u>www.hindustanpetroleum.com</u>.

Annexure 1

PRE BID MEETING - TENDER NO. 21000471-HD-10157

Pls. note the following details to join the Pre Bid meeting for the subject tender thru Zoom:

Topic: PRE BID MEETING - TENDER NO. 21000471-HD-10157 - CCTV AT 44 LPG

INSTALLATIONS

Time: Sep 9, 2021 11:00 AM Mumbai, Kolkata, New Delhi

Join Zoom Meeting

https://hpcl-in.zoom.us/j/95163979318?pwd=TTFkQlRVZG5lemdrWjhmdkk0QzdwQT09

More Ways to join:

Web Browser -

https://hpcl-in.zoom.us/j/95163979318?pwd=TTFkQlRVZG5lemdrWjhmdkk0QzdwQT09

Meeting ID: 951 6397 9318

Passcode: 680271

One tap mobile

+912248798012,,95163979318#,,,,*680271# India

+912264802722,,95163979318#,,,,*680271# India

Join by Telephone

For higher quality, dial a number based on your current location.

+91 224 879 8012 India

+91 226 480 2722 India

+91 22 71 279 525 India

+91 406 480 2722 India

+91 446 480 2722 India

+91 806 480 2722 India

+91 80 71 279 440 India

+91 116 480 2722 India



Tender No. 21000471-HD-10157 (CCTV AT 44 LOCATIONS)

+91 22 48 798 004 India

Meeting ID: 951 6397 9318

Passcode: 680271

Find your local number: https://hpcl-in.zoom.us/u/agpXJiJvO

Join by SIP

95163979318@zoomcrc.com

Or

Join by H.323

115.114.131.7 (India Mumbai)

115.114.115.7 (India Hyderabad)

Meeting ID: 951 6397 9318

Passcode: 680271



PRE QUALIFICATION CRITERIA

Bidders are required to qualify each of the following Pre Qualification Criteria to become eligible for further evaluation. HPCL reserves the right to independently verify with their client to assess bidder's capability against any of the following criteria.

Bidder shall meet all the criteria specified under Clause 2.1 and 2.2

2.1 TECHNICAL CRITERIA:

Bidder should have successfully executed during the last 7 years ending on 31.08.2021 **Similar Works** # of minimum value as given below:-

TABLE - 1:

Sch. No.	To quote for the following Schedules	I One (1) similar (*) work costing not less than the following amount (In ₹ lakhs)	OR	II Two (2) similar (*) works each costing not less than the following amount (In ₹ lakhs)	OR	III Three (3) similar (*) works each costing not less than the following amount (In ₹ lakhs)
1	North Zone	493		308		247
2	North West Zone	471		295		236
3	South Zone	447		280		224
4	North Central Zone	377		236		189
5	East Zone	375		235		188
6	West Zone	301		188		151
7	South Central Zone	256		160		128

Similar work shall mean "providing integrated video surveillance systems or CCTV networks solutions within installations, facilities, city surveillances etc".

The Bidder should submit completion certificates mentioning the details of value of completed purchase orders meeting the above criteria from the User Companies on their letter head to similar job as mentioned above are completed and operated. The Completed/Part quantity of the purchase order or purchase contract as on or before **31.08.2021** as certified by the user company will be considered.



NOTE:

- 1. Bidders are allowed to bid for a single or multiple Schedules. In case any bidder bids for a single schedule, technical criteria as specified for that schedule needs to be complied with.
- 2. In case any bidder bids for 2 schedules, technical criteria needs to be equal to or more than the cumulative value of the amounts mentioned in Table 1 against the subject schedules they intend to participate.
- 3. In case any bidder intends to bid for more than 2 schedules, bidder shall be eligible for subsequent evaluation for all such schedules provided they comply with the Technical PQC criteria for the highest value of two schedules among the set of schedules, the bidder intends to bid. This is further explained in detail below:

In case a bidder meets the combined technical criteria for Schedule 1 (North Zone) and Schedule 2 (North West Zone) as mentioned in the above table, the bidder shall also qualify for all subsequent schedules (3 - 7). In case a bidder meets the combined technical criteria for Schedule 3 (South Zone) and Schedule 4 (North Central Zone) as mentioned in the above table, the bidder shall also qualify for all subsequent schedules (5 - 7), but not for Schedules 1 & Schedule 2.

2.2 Annual Turnover: shall meet the minimum prescribed pre-qualification requirement as follows:

TABLE 2:

SCHEDULE No.	To quote for the following schedules	Annual financial turnover during the last 3 years, ending on March 2021, should be at least (₹ Lakhs)
1	North Zone	185
2	North West Zone	177
3	South Zone	168
4	North Central Zone	142
5	East Zone	141
6	West Zone	113
7	South Central Zone	96

The copies of notarized audited balance sheet and profit & loss account showing the Annual Turnover to be submitted along with the un-priced bid as a proof.



Average turnover shall be determined by summing up the annual turnover of each financial year and dividing the sum by three. In the event a bidder does not have any turnover in any one or two of the years of the stated Financial years, the turnover for that/those years shall be taken as zero and the average turnover shall be calculated to determine the conformity to the turnover criteria.

In case where audited results for the last financial year i.e. 31st March, 2021, as on the date of submission of the tender are not available, bidders shall submit the audited results of three consecutive financial years preceding the last financial year, i.e. 2017-18, 2018-19 & 2019-20. and a Certificate signed by CEO/ CFO/ Partner/ Proprietor of the Bidder shall be submitted stating that the financial results of the last financial year of the Company / firm are under audit as on the date of submission of the bid.

Bidders shall meet both the above criteria i.e. Technical and Financial to be eligible for this tender. Offers of bidders not meeting Bid Qualification Criteria Technical or Financial shall be rejected.

Note:

- 1. Bidders participating in 1 (One) schedule, need to meet the annual average financial turnover criteria for that schedule mentioned in Table 2.
- The average annual financial turnover of bidders participating in 2 schedules, needs to be equal to or more than the cumulative value of the amounts mentioned in Table
 2 against the subject schedules they intend to participate.
- 3. The average annual financial turnover of bidders participating in more than 2 schedules, needs to be equal to or more than the cumulative value of the largest 2 amounts mentioned in Table 2 among the set of schedules they intend to participate.

Even though the bidder qualifies the PQC criteria for 2 or more than 2 schedules, maximum 3 (Three) Schedules shall be awarded to any particular bidder. Hence, their offer (in case bids are submitted by such bidder for more than three schedules) shall be opened serially from Schedule No. 1 to Schedule No. 7 and once they become L1 for initial 3 (three) schedules, then price bids of the remaining schedules in which the bidder has participated will not be opened.

For Technical Criteria and Financial Criteria, PQC will be relaxed by 15% for Micro and Small Enterprises, subject to meeting the prescribed quality and technical specification of the tendered items/services.

Offers received from Vendors who are blacklisted or Holiday listed by any Government or Quasi Government Agencies or PSU as of due date of this tender may not be considered. The decision to consider / not to consider the offers of blacklisted or Holiday listed by Government or Quasi Government Agencies or PSU will be at the sole discretion of HPCL. Bidders who submit declarations notifying their blacklisted/



holiday listed status are also required to submit the copy of the holiday listing letter than they have received from Government or Quasi Government Agencies or PSU.

- 2.3 Bidder shall furnish documentary evidence i.e. copies of work orders/ relevant pages of contract, completion certificate from their clients/PM & SS Services provider, annual reports containing audited balance sheets in support of their fulfilling the bid qualification criteria. HPCL reserve the right to complete the evaluation based on the details furnished without seeking any additional information.
- 3.0 Parties who are affiliates of one another can decide which Affiliate will make a bid. Only one affiliate may submit a bid. Two or more affiliates are not permitted to make separate bids directly or indirectly. If 2 or more affiliates submit a bid, then any one or all of them are liable for disqualification.

"Affiliate" of a Party shall mean any company or legal entity which:

- (a) Controls either directly or indirectly a Party, or
- (b) Which is controlled directly or indirectly by a Party; or
- (c) Is directly or indirectly controlled by a company, legal entity or Partnership firm which directly or indirectly controls a Party "Control" means actual control or ownership of at least a 50% voting or other controlling interest that gives the power to direct, or cause the direction of, the management and material business decisions of the controlled entity.
- 4.0 Bids may be submitted by:
- a) A single person/entity (called sole bidder);
- b) A newly formed incorporated joint venture (JV) which has not completed 3 financial years from the date of commencement of business;
- c) Subsidiaries / Affiliates of Indian or foreign companies
- 5.0 Fulfillment of Eligibility criteria and certain additional conditions in respect of each of the above types of bidders are stated below, respectively:
- a) The bidders (including an incorporated JV which has completed 3 financial years after date of commencement of business) shall fulfil each eligibility criteria on individual / combined basis.
- b) In case the bidder is a newly formed and incorporated joint venture and which has not completed three financial years from the date of commencement of business, then either the said JV shall fulfil each eligibility criteria or any one constituent member/ promoter of such a JV shall fulfill each eligibility criteria. If the bid is received with the proposal that one constituent member/ promoter fulfils each eligibility criteria, then this member/promoter shall be clearly identified and he/it shall assume all obligations under the contract and provide such comfort letter/guarantees as may be required by Owner. The guarantees shall cover inter alia the commitment of the member/ promoter to complete the entire work in all



respects and in a timely fashion, being bound by all the obligations under the contract, an undertaking to provide all necessary technical and financial support to the JV to ensure completion of the contract when awarded, an undertaking not to withdraw from the JV till completion of the work, etc.

c) "Subsidiaries / Affiliates of Indian or foreign companies which are registered in India and having manufacturing facilities or establishment towards providing services in India are allowed to participate in this tender, subject to meeting the local content provisions as per the PPLC clause enclosed with this tender. Such entities can participate either on the basis of their credentials (Technical & Financial) or on the basis of the credentials (Technical or Financial) of their parent company, as per the PQC requirements applicable for this tender. However, the Indian subsidiary must meet at least one of the PQC, either Technical or Financial.

In case the parent company is from a country which shares a land border with India, then the subsidiary company will be eligible to bid in this tender only if the parent company is registered with the Competent Authority constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)."

6.0 Information/Documents required along with bid:

- a) Title, style and postal address of the firm.
- b) Communication particulars including telephone numbers, fax numbers and e- mail address.
- c) Following documents are required to be submitted as proof of meeting prequalification criteria [Clause no. 2.2-Commercial]:
 - (i) Notarized copies of Audited Annual Reports/Balance sheet & Profit and Loss account for the last three financial years
- d) Following documents are required to be submitted as proof of meeting prequalification criteria [Clause no. 2.1(Technical criteria)
 - (i) Notarized copy or original Purchase/work Order /Scope of work /certified bills from client/owner / project PM & SS Services provider/ along with their completion certificate. The Purchase/work Order and completion certificate should mention the details of jobs carried out by the applicant so as to enable us to identify whether the applicant(s) meets the technical criteria stipulated above or not.
 - (ii) Any other document certified by the owner/client (for whom the job has been executed) specifically having mention of the jobs carried out in support of meeting the technical criteria stipulated above.

If the documents i.e. Purchase Order/Balance Sheets submitted by the bidder for BQC compliance are in foreign currency, then the same will be evaluated basis the currency conversion rate (RBI reference rate) prevailing as on that date of the document .e.g. Date of purchase order etc.

PURCHASE PREFERENCE (LINKED WITH LOCAL CONTENT) (PP - LC)

Manufacturers / Suppliers / Service providers (including EPC & Works Contracts) having the capability of meeting / exceeding the local content targets as mentioned in this document shall be eligible for 20% purchase preference, subject to their complying with the requirements / conditions defined herein and submitting documents required in support of the same.

Bidders can avail Purchase Preference under any of the extant GoI Policies: PP-LC / PPP for MSE 2012 / Domestically Manufactured Electronic Products (DMEP) / Domestically Manufactured Telecom Products (DMTP). Vendors are requested to declare their preference in their un-priced bids. Format of undertaking (Attachment – 1) for purchase preference being claimed under applicable policy is enclosed with this document. Purchase preference benefits shall be extended to the bidder based on the declared option, subject to the bidder meeting the requirements contained in that purchase preference policy. The option once exercised cannot be modified subsequently.

Vide Notification No. 18-10/2017-IP dated 29.08.2018, Ministry of Communications notified Preference to Domestically Manufactured Telecom Products, Services or Works (as per Table-A of the notification), in furtherance to Public Procurement Policy (Preference to Make in India), Order 2017. A copy of the Notification is available on the website of Ministry of Communication. Bidders shall refer Order no. P-45021/2/2017-B.E.-II dated 15.6.2017, amended by Order no. P-45021/2/2017-B.E.-II dated 28.05.2018 and P-45021/149/2019-BE-II dated 29.05.2019. Latest amendment issued to the policy in this regard shall be applicable. The policy is applicable for notified Telecom Products, Services or Works as mentioned in the Table-A of the afore said notification.

In case a MSE bidder opts for purchase preference based on PP-LC / DMEP / DMTP, the bidder shall not be entitled to claim purchase preference benefit available to MSE bidders under PPP-2012. However, the exemptions from furnishing Bid Document fee and Bid security/EMD shall continue to be available to MSE bidders.

Order of precedence for applying the purchase preference shall be :-

- (a) Public Procurement Policy for MSE 2012.
- (b) Purchase Preference linked with Local Content.

Definitions

Domestic products: Goods and/or service (including design and engineering) produced by companies investing and producing in India.

Local content: hereinafter abbreviated to LC means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported component in the item (including all custom duties) as a proportion of the total value, indicated in percentage.

Domestic Manufacturer: Business entity or individual having business activity established under Indian law and producing products domestically.

Supplier of goods and/or provider of service shall be a business entity having capability of providing goods and/or service in accordance with the business line and qualification thereof and classified as under:

'Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement has local content equal to or more than 50% as defined under this Policy.

'Class-II local supplier' means a supplier or service provider, whose goods, services or works offered for procurement has local content more than 20% but less than 50%, as defined under this Policy.

'Non local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than or equal to 20%, as defined under this Policy.

Verification: Activity to verify the accomplishment of LC by domestic manufacturers and/or suppliers of goods and/or providers of service with the data obtained or collected from respective business activities.

Purchase Preference: Where the quoted price is within 20% of the lowest price, other things being equal, purchase preference may be granted to the bidders concerned, at the lowest valid price bid.

Local content (LC) in Goods: shall be the use of raw materials design and engineering towards manufacturing, fabrication and finishing of work carried out within the country.

Local content (LC) in Services: shall be the use of services up to the final delivery by utilizing manpower (including specialist), working appliance (including software) and supporting facilities carried out within the country.

Local content (LC) in EPC Contracts: shall be the use of materials, design and engineering comprising of manufacturing, fabrication, assembly and finishing as well as the user of services by utilizing manpower (including specialist), working appliance (including software) and supporting facilities carried out within the country.

Factory overhead cost: indirect costs of manpower, machine/working appliance/facility and the whole other fabrication costs needed to produce a unit of product with the cost not chargeable directly to the specified product.

Company overhead cost: Costs related to the marketing, administration and general affairs cost of the company.

Indian Company: means a company formed and registered under the Companies Act, 2013.

Foreign company: means any company or body corporate incorporated outside India which – (a) has a place of business in India whether by itself or through an agent physically or through electronic mode and (b) conducts any business activity in India in any other manner.

Procurement:

The prescribed local content mentioned in this document shall be applicable on the date of Notice Inviting Tender.

Margin of Purchase Preference: The margin of purchase preference shall be 20%.

Only Class-I local supplier and Class-II local supplier shall be eligible to bid in this tender. However, preference as per PP-LC will be given only to Class-I local supplier. Class-II local supplier will not get any purchase preference.

The producers of goods and / or providers of services shall be obliged to fulfil the requirements of quality and delivery time in accordance with the provisions of the respective contracts of goods and services.

Purchase Preference - Linked with Local Content (LC)

Wherever the goods/services are procured under this policy, eligible (techno-commercially qualified) Class - I Local Suppliers will be granted a purchase preference of 20%, i.e., where the quoted price is within 20% of the lowest price, other things being equal, purchase preference will be granted to the eligible (techno-commercially qualified) Class - I Local Suppliers concerned, at the lowest valid price bid.

Goods:

The contract for 50% of the procured quantity would be awarded to the lowest techno-commercially qualified Class - I Local Supplier, subject to matching the L1 price, if such bidders are available. The remaining quantity will be awarded to L1 bidder.

However, if L1 bidder happens to be Class - I Local Supplier, the entire procurement value shall be awarded to such bidder.

If L1 bidder is not Class - I Local Supplier, then the lowest eligible Class - I Local Supplier among the eligible Class - I Local Suppliers, whether L2, L3, L4 or higher, will be invited to match the L1 bid. In case first eligible Class - I Local Supplier fails to match L1 bid, the next Class - I Local Supplier will be invited to match L1 bid and so on.

Only the Class - I Local Suppliers whose bids are within 20% of the L1 bid would be allowed an opportunity to match the L1 bid.

If the tendered quantity cannot be divided in the prescribed ratio of 50:50, then the eligible Class I Local Supplier shall be awarded contract for quantity not less than 50%, as may be divisible, subject to matching the L1 price.

If the tendered item is non-divisible, the contract will be awarded to the eligible Class - I Local Supplier for the entire quantity, subject to matching the L1 price.

In case none of the eligible Class - I Local Suppliers match the L1 bid, the actual bidder holding L1 bid will secure the order for full procurement value.

Services / EPC Contracts:

If L1 bidder happens to be Class - I Local Supplier, the bidder will be awarded full value of the order.

If L1 bidder is not Class - I Local Supplier, then the lowest eligible Class - I Local Supplier among the eligible Class - I Local Suppliers, whether L2, L3, L4 or higher, will be invited to match the L1 bid. In case first eligible Class - I Local Supplier fails to match L1 bid, the next Class - I Local Supplier will be invited to match L1 bid and so on.

Only the Class - I Local Suppliers whose bids are within 20% of the L1 bid would be allowed an opportunity to match the L1 bid.

In case none of the eligible Class - I Local Suppliers match the L1 bid, the actual bidder holding L1 bid will secure the order for full procurement value.

Determination of LC

LC of goods

LC of goods shall be computed on the basis of the cost of domestic components in goods, compared to the whole cost of product. The whole cost of product shall be constituted of the cost spent for the production of goods, covering direct component (material) cost; direct manpower cost, factory overhead cost and shall exclude profit, company overhead cost and taxes for the delivery of goods.

The criteria for determination of the local content goods shall be as follows: -

- a. In the case of direct component (material), based on country of origin
- b. In the case of manpower, based on INR component

The calculation of LC of the combination of several kinds of goods shall be based on the ratio of the sum of the multiplication of LC of each of the goods with the acquisition price of each goods to the acquisition price of combination of goods.

LC of Service

LC of service shall be calculated on the basis of the ratio of service cost of domestic component in service to the total cost of service.

The total cost of service shall be constituted to the cost spent for rendering of service, covering:

- a. Cost of component (material) which is used;
- b. Manpower and consultant cost; cost of working equipment/facility; and
- c. General service cost, excluding profit, company overhead cost, taxes and duties.

The criteria for determination of the cost of local content in services shall be as follows: -

- a. In the case of material being used to help the provision of service, based on country of origin;
- b. In the case of manpower and consultant based on INR component of the services contract;
- c. In the case of working equipment/facility, based on country of origin; and
- d. In the case of general service cost, based on the criteria as mentioned in clauses a, b and c above

LC of EPC Contracts

LC of EPC contracts shall be the ratio of the whole cost of domestic components in the combination of goods and services to the whole combined cost of goods and services.

The whole combined cost of goods and services shall be the cost spent to produce the combination of goods and services, which is incurred on work site. LC of the combination of goods and services shall be counted in every activity of the combination work of goods and services.

The spent cost as mentioned above shall include production cost in the calculation of LC of goods and service cost in the calculation of LC of services respectively as mentioned above.

Calculation of LC and Reporting

LC shall be calculated on the basis of verifiable data. In the case of data used in the calculation of LC being not verifiable, the value of LC of the said component shall be treated as nil.

Certification and Verification

Class – I / Class – II suppliers are eligible to bid only if they meet the local content norms, therefore whether or not they are eligible to avail PP-LC benefit, it will be mandatory to provide adequate documentation as mentioned below in order to establish their status as Class- I or Class – II supplier.

At bidding Stage:

a. Local Content

The bidder shall provide the percentage of local content in the bid.

b. Undertaking by the bidder

- The bidder shall submit an undertaking {(self-assessment) certified by the Authorized signatory of the bidder having Power of Attorney)} (as shown in Attachment 1) along with the bid stating that the bidder meets the mandatory minimum LC requirement and such undertaking shall become a part of the contract.
- In case the procurement value is more than Rs. 10 Crores, the undertaking submitted by the bidder shall be supported by a certificate from statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of other than companies) giving the percentage of local content.

After Contract Award:

- a. The bidder shall submit an undertaking {(self-assessment) certified by the Authorized signatory of the bidder having Power of Attorney)} along with the bid stating that the bidder meets the mandatory minimum LC requirement and such undertaking shall become a part of the contract.
- b. **In case the procurement value is more than Rs. 10 Crores**, the undertaking submitted by the bidder shall be supported by a certificate from statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of other than companies) giving the percentage of local content.
- c. Each supplier shall provide the necessary local-content documentation to the statutory auditor

which shall review and determine that local content requirements have been met, and issue a local content certificate to that effect on behalf of procuring company, stating the percentage of local content in the good or service measured. The Auditor shall keep all necessary information obtained from suppliers for measurement of Local Content confidential.

- d. The Local Content certificate shall be submitted along with each invoice raised. However, the % of local content may vary with each invoice while maintaining the overall % of local content for the total work/ purchase of the pro-rata local content requirement. In case it is not satisfied cumulatively in the invoices raised up to that stage, the supplier shall indicate how the local content requirement would be met in the subsequent stages.
- e. As regards cases where currency quoted by the bidder is other than Indian Rupee, exchange rate prevailing on the date of notice inviting tender (NIT) shall be considered for the calculation of Local Content.
- f. HPCL shall also have the authority to audit as well as witness production processes to certify the achievement of the requisite local content.

Sanctions:

HPCL shall impose sanction on manufacturers / service providers not fulfilling LC of goods/services in accordance with the value mentioned in certificate of LC.

The sanctions may be in the form of written warning, financial penalty and holiday listing.

In the event that a manufacturer or supplier of goods and / or service provider does not fulfil their obligation after the specified period in such warning, HPCL can initiate action for holiday listing such manufacturer/supplier/ Service provider.

A manufacturer and/or supplier of goods and / or provider of services who has been awarded the contract after availing Purchase Preference is found to have violated the LC provision in execution of the procurement contract of goods and / or services, shall be subject to financial penalty specified in the following clause:

"The financial penalty shall be over and above the PBG value prescribed in the contract and shall not be more than an amount equal to 10% of the contract Price".

Attachment 1 (Undertaking) to be submitted on letter head, duly filled, stamped and signed (as applicable) by:

- a) Authorized signatory of the bidder having Power of Attorney for tender value < Rs. 10 Crores.
- b) The undertaking submitted by the bidder shall be supported by a certificate from statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of other than companies) for tender value > or = Rs. 10 Crores.

<u>UNDERTAKING</u> <u>ATTACHMENT -1</u>

Tender no dated	
all the requirements of the PP-LC / DMEP / D	of Bidder) hereby state and undertake that we meet MTP (retain whichever is applicable and remove the ler document and herby confirm that we are eligible
	ect at any point of time during the tender process or have the right to impose sanctions as stated in the
whichever is applicable and remove the bala	f Goods / Services / EPC / Works Contract (retain ance options) as per the scope of job to be executed ne time of bidding.
Place: Date:	[Signature of Authorized Signatory of Bidder] Name: Designation: Seal:

(In case quoted value **exceeds Rs. 10 Crores**, the undertaking should be supported by a certificate from Statutory Auditor engaged by the bidder certifying that the bidder meets the mandatory local content requirement.)

Distribution of Order

Status of L1 Bidder	% Order Distribution		
Class - I Supplier	L1 Bidder : 100 %		
Class - II Supplier	Eligible Class – I Supplier : 100 %	In case of non- availability of eligible Class – I Supplier L1 Bidder : 100 %	





		45				
TENDER DOCUMENT						
SI.No.	Description	Attached File	Set Value	Supporting Doc. Req'd		
1	TENDER DOCUMENT	CCTV TENDER DOCUMENT_1.pdf	-	No		
2	TECHNICAL SPECIFICATIONS	Tender Specification.pdf	-	No		
3	ANNEXURE A	Annexure A.pdf	-	No		
4	ANNEXURE B	Annexure B.pdf	-	No		



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

HINDUSTAN PETROLEUM CORPORATION LIMITED

TENDER DOCUMENT FOR

INTEGRATED VIDEO SURVEILLANCE SYSTEM (CCTV)

AT

44 LPG INSTALLATIONS

HINDUSTAN PETROLEUM CORPORATION LIMITED

INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

INDEX

- 1. Introduction
- 2. Special Terms & Conditions
- 3. Detailed Scope of Work
- 4. Technical Specification of Various Hardware and Software required

साम पेट्रोलिका HP

HINDUSTAN PETROLEUM CORPORATION LIMITED

INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

SECTION 1.0 - INTRODUCTION AND PROJECT SITES

1.1 Introduction:

Hindustan Petroleum Corporation Limited (hereafter abbreviated as HPCL) is a Maharatna CPSE, with turnover of approx. 3 Lakh crore Keeping pace with the nation's energy requirements, HPCL infrastructure today boasts of strategically located refineries and a widespread marketing network consisting of cross-country pipelines, LPG bottling plants, lube blending plants, and other facilities.

Through this tender, HPCL wishes to receive bids for design, supply installation testing and commissioning of an integrated IP based video surveillance at 44 LPG installations and as per the scope of job described in details.

The tenderers are required to go through the tender document thoroughly and carefully and offer their most competitive rates for the job. The tender is divided into 7 schedules based on zonal locations. Bidders may bid in just one schedule or multiple schedules. Details of the 7 schedules along with address of the 44 locations are given in Annexure - A.

OBJECTIVE OF THE PROPOSED IP BASED VIDEO SURVEILLANCE SYSTEM:-

IP based Video Surveillance System is intended to effectively monitor total area of the location, for operations, safety, security and surveillance requirements. The broad objectives of the integrated VIDEO SURVEILLANCE system are as follows:

- Security & Surveillance of LPG Locations
- Operational & safety enhancements
- Mitigation of threats.
- Continuous Recording of all the cameras for min. 90 days.
- Tamperproof record for post event analysis.
- The Surveillance System shall provide an on-line display of video images and recorded images and controlling of all cameras by the authorized users.

System should provide inter-operability of hardware, OS, software, networking, printing, database connectivity, reporting, and communication protocols. System expansion should be possible through off-the-shelf available hardware.

HINDUSTAN PETROLEUM CORPORATION LIMITED

INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

Video Management System (VMS) shall have a tight and seamless integration. However, they shall not have inter-dependency on each other i.e. in other words VMS shall be on open protocol and shall be capable of tight and seamless integration with any VMS which are on open protocol.

HPCL will provision all video analytics which will be hosted through a server. These video analytics shall be integrated to the video surveillance system through third party. All support should be provided for seamless integration of the video analytics. Required protocol for these applications for any such integration shall be shared with third party/HPCL without any extra cost

The functions intended from the VIDEO SURVEILLANCE System as described in this document, shall be as follows but not limited to the following;

- To provide continuous surveillance of the protected areas viz. operating area, security gates, perimeter, bulk storage area, TT gantry, Pump house and other vital areas within the Location
- To provide remote (over LAN) plant overview by manual command and/or automatic selection. System should be capable of remote monitoring and control for future expansion.
- To monitor entry and exit of all vehicles and human beings at the main gate and keep recording
 of the same.
- To provide overview of Truck parking area, Truck entry and exit gates, Truck loading and unloading area, Tank truck unloading area for monitoring of proper vehicle movement and aid in avoiding congestion at any of these points.
- To provide an overview of critical operating areas such as Tank farm, TT gantry, Pump house, Fire pump house, loading/unloading platform etc. for monitoring of safe operating practices.
- Complete recording of all the Cameras for minimum 90 days.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

SECTION 2.0- SPECIAL TERMS AND CONDITIONS

- 1. Special Terms and Conditions of the contract shall be read in conjunction with the General Terms & Conditions of Contract, Specification of Work, Drawing and any other documents forming part of this Contract wherever the context so requires.
- The company reserves the right to split the job among two or more parties if required. HPCL also reserves the right to reject any or all the Tenders fully or partly without assigning any reasons. On finalization of contract the Rates shall remain FIRM throughout the period of contract & No Escalation shall be entertained.
- The tenderers should see the site conditions before quoting. The site will be offered on as is where is for the execution of the job and it will be sole responsibility of the vendor to ensure that they abide by the various rules, regulations, bye-laws and other statutory requirements. Etc. Imposed by the Government / semi-Government and / or other local authorities governing execution of his job.
- 4 HPCL will have the right to alter, add or delete any item/ all the items without assigning any reasons. No claims for compensations will be entertained by HPCL. The company reserves the right to split the job among two or more parties if required. HPCL also reserves the right to reject any or all the Tenders fully or partly without assigning any reasons.
- As LPG Plant is being a sensitive & prohibited area, the contractor should scrutinize each of his workmen to ensure safety of the plant in all respects. The contractor shall issue identification cards and the list of his employees should be authorized by HPCL to all workmen employed by the contractor. In case of any replacement of person, contractor has to take prior approval from HPCL before issuing Identification Cards to new entrants. However, it shall be the responsibility of the contractor to ensure safe working conditions in the company premises. Party has to submit police verification certificate of all workmen to HPCL
- 6 Labour camp will not be permitted inside the plant premises. The contractor to make necessary arrangements elsewhere for the same.
- Bidder will visit the site before quoting for the job. Each site geographical, locations of CCTV, installation type need to be check before quoting. It is solely responsibility of party to execute job in given site.
- Notwithstanding the sub-division of the documents into these separate sections and volumes, every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read within the Contract so far as it may be practicable to do so.
- 9 Where any portion of the General Terms & Condition of Contract is repugnant to or at variance with any provisions of the Special Terms & Conditions of Contract, unless a different intention appears, the provisions of the Special Terms & Conditions of Contract shall be deemed to over-ride the provisions of the General



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

Terms & Conditions of Contract and shall to the extent of such repugnancy or variations, prevail.

- Wherever, it is mentioned in the specification that the Successful Bidder shall perform certain work or provide certain facilities, it is understood that the Successful Bidder shall do so at his cost and the Value of Contract shall be deemed to have included cost of such performance and provisions, so mentioned.
- 11 The materials, design and workmanship shall satisfy the relevant Indian Standard, the Job Specifications contained herein and Codes referred to the tender.
- 12 In case of an irreconcilable conflict between Indian or other applicable standards, General Terms & Conditions of Contract, Special Terms & Conditions of Contract, Specification, Drawings or Schedule of Rates, the following shall prevail to the extent of such irreconcilable conflict in order of precedence:
 - a. Letter of Acceptance (LOA) / Purchase Order (PO)
 - b. Schedule of Rates as enclosures to LOA /PO
 - c. Special terms and conditions of the Contract
 - d. Drawings
 - e. Technical / Material specifications
 - f. Instructions to Bidder
 - g. General Conditions of Contract
 - h. Indian Standards
 - i. Other Applicable Standards
- In the absence of any Specifications covering any material, design of work (s) the same shall be performed / supplied / executed in accordance with Standard Engineering Practice as per the instructions / directions of the Engineer-in-Charge, which will be binding on the bidder. These have to be completed at no extra cost to HPCL.
- 14 HPCL will facilitate the successful bidder in carrying out the job, the vendor shall execute the work in the operating location after taking necessary permissions, without affecting the normal functioning of the location.
- 15 TENDER PRICE, TAXES, and DUTIES ETC.



- A. The bidders to quote for the scope of job as defined in this tender enquiry. Bidders are required to quote in Indian Rupees only.
- B. The quoted prices should be inclusive of transportation and all taxes, duties, cess, levies etc. No extra amount other than quoted will be payable on any account whatsoever.
- C. In case the bidder proposes to use any templates/tools or any other items which is not specified in the SOQ, to facilitate the implementation, the cost of the same, if any, should be included in the above quoted rates and no extra payment will be made on this account.
- D. The Successful Bidder will have full and exclusive liability for the payment of all taxes and other statutory payments payable under any or all of the statutes/laws/acts etc. now or hereafter imposed. Income Tax and other such levies will be deducted at source by HPCL, at the rates prescribed by law at the time of the payment.
- E. The rates quoted above for the total scope of job should be submitted by the Bidder considering that all the expenses including travel, lodging, boarding, local travel and other expenses related to the project are to bidder's account. No extra claims on this account will be entertained.
- F. It is the clear understanding of the bidder that the complete scope as defined or as may be required for the intended objective of this tender is included in the quoted price. No extra payment apart from the quoted price will be made in order to achieve the intended objectives. Reasons like, bidder having not envisaged / considered a particular activity or element of cost required to be carried out for achieving the intended objective or some activity not specifically mentioned in the tender enquiry/tender but required to be carried out for achieving the intended objective, will not form basis for considering extra payments.
- G. No extra payments will be made for working on extended hours / Saturdays / Sundays / Holidays to meet the committed/required time schedules. However normally no work will be allowed on Public Holiday / Weekly Holiday but time period given for completion of job will be considered as inclusive of these days also.
- H. SPECIAL NOTE ON TAX FOR SUPPLY ITEMS
- I. Hindustan Petroleum Corporation Limited shall not provide C-Form or any other form for concessional tax. The bidder should quote GST and any other applicable levies at FULL RATE applicable for the delivery of material(s) to the location as specified in the tender.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

16 TERMS OF PAYMENT:

Subject to the provisions under the General Terms & Conditions of the Contract for deduction of taxes at source, retention money, Liquidated Damages etc. the following payment terms shall prevail. All payments shall be made from CPC-CPO.

Vendors have been facilitated to submit digitally signed invoices through the Vendor Bill Tracking System (BTS) Portal effective 01.10.2020. Pls. refer the user manual outlining the process hosted on BTS portal for further details.

16.1 For Supply items:

- 16.1.1 80% of the quoted rates shall be paid on receipt of the material at site based on the certification of HPCL along with submission of the following documents;
 - a) Approved Datasheet
 - b) Copies of invoices showing goods description, quantity, unit price and total amount.
 - c) Railway receipt / Lorry Receipt / delivery challan duly acknowledged by the Consignee.
 - d) Inspection Certificate and dispatch clearance issued by the nominated Inspection Agency
 - e) Copies of Material inspection report at site duly signed by location officers and copy of Receiving Gate Passes at locations mentioning details of the equipment.
- 16.1.2 10% of the quoted rates shall be paid on completion of erection and successful commissioning (SITE ACCEPTANCE TEST). Successful commissioning is defined as compliance of all SAT punch points by bidder and accepted by HPCL.

In case SAT is not completed by Contractual Delivery Date due to reason not attributable to the Vendor including non-availability of frontage, then amount will be payable against cold SAT/Site MOM on submission of equivalent amount of Bank Guarantee valid till 12 months

16.1.3 Balance 10% after User Acceptance Test (UAT)

16.2 For Erection Items/Installation items/Testing commissioning

16.2.1 90% of the quoted rates shall be paid after successful completion of SAT.

In case SAT is not completed by Contractual Delivery Date due to reason not attributable to the Vendor including non-availability of frontage for erection



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

job, then amount will be payable against Cold SAT/Site MOM on submission of equivalent amount of Bank Guarantee valid till 12 months

Successful commissioning is defined as compliance of all SAT punch points by bidder and accepted by HPCL.

16.2.2. Balance 10% after User Acceptance Test (UAT)

16.3 For Software line item

16.3.1 90% of the quoted rates shall be paid after successful completion of SAT. In case SAT is not completed by Contractual Delivery Date due to reason not attributable to the Vendor including non-availability of frontage for erection job, then amount will be payable against Cold SAT/Site MOM on submission of equivalent amount of Bank Guarantee valid till 12 months

Successful commissioning is defined as compliance of all SAT punch points by bidder and accepted by HPCL.

16.3.2. Balance 10% after User Acceptance Test (UAT)

Note to Vendors:

- Above Payment terms based upon receipt of 3 % Contract BG in lieu of Retention money however if vendor will not submit the 3 % Contract BG for the period of Defect Liability period then, 3 % Payment will remain on hold till completion of warranty period.
- Vendor shall update bill details in BTS (Bill Tracking system) and forward original bills to CPC at Mumbai and also a copy to user department in HPCL location to enable them to prepare MRR.
- The tax invoice raised on HPCL shall carry both vendor's GSTIN no. and GSTIN no. of respective HPCL location.
- 17 Warranty Period: The system provided should be guaranteed / warranted for any kind of manufacturing defects and satisfactory performance for a period of 12 months from the date of acceptance / final sign off. Warranty period will be started after compliance of all SAT Punch Points or 15 months from the delivery of last material only if delay is not attributable to bidder.

18 PERFORMANCE BANK GUARANTEE



- 18.1 The Successful Bidder shall submit a bank guarantee to HPCL equivalent to 3 % (Three percent) of the total value of the contract from any scheduled bank (other than cooperative banks) in India, acceptable to HPCL, in the format given in Annexure as security for the performance of the implementation, Successful Bidder's obligation and/or discharge of Successful Bidder's liability in connection with the said contract. In case of any loss or damage, costs, charges and expenses caused to or suffered by HPCL by reason of non- performance and non-fulfillment or for any breach on the part of the Successful Bidder of any of the terms and conditions of the contract, HPCL shall be entitled to invoke the said bank guarantee. Any excess of expenditure incurred by HPCL on account of above shall be payable by the Successful Bidder. The decision of HPCL in this behalf shall final and binding on the Successful Bidder. It inter alia includes
 - (a) Defect liability that may arise during the currency of the contract.
 - (b) Defect liability that may arise during the period covered under defect liability period clause of the tender.
 - (c) Successful Bidder's performance on the tender
 - (d) BG should be obtained from the Bank Branch (scheduled Bank, other than Co- operative Bank) which is live on SFMS.
 - e) Your Bank should send the BG issuance advice through SFMS to HPCL's designated bank.
 - f) The concerned Vendor/Transporter/Customer is advised to take a printout of SFMS Delivery Report from the BG Issuing Bank Branch and attach copy of the same along with the hard copy of BG while submitting the same to HPCL.
- 18.2 The above bank guarantee should be submitted by the Successful Bidder within 15 days of receipt of the LOA or the P.O failing which HPCL reserves the right to forfeit the EMD and cancel the contract. The bank guarantee should be valid for a period of minimum 12 months from the completion of the job, with additional claim period of 3 months. Retention money clause (7c) given in the General Terms & Conditions will not be applicable for the works where PBG has been collected.
- 18.3 Any defect which may arise or lie undiscovered connected in any way with the services/material provided by the Successful Bidder shall be rectified / replaced by the Successful Bidder at his own expense, failing which HPCL shall be entitled to rectify the said defects by invoking the said guarantee. Any excess of expenditure incurred by HPCL on account of defect/defects shall be payable by the Successful Bidder. The decision of HPCL in this behalf shall not be liable to be questioned but shall be final and binding on the Successful Bidder.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

- 18.4 Successful Bidder shall remain responsible and liable to make good any defects at his own expense, which may occur/appear to the work carried out under the contract within a period of 2 months from the date of successful completion of the job or issue of completion certificate, whichever is later. If the contractor fails to make good the defects, HPCL shall be entitled to rectify the said defects and revoke the bank guarantee. The decision of HPCL in this behalf shall not be liable to be questioned but shall be final and binding on the Successful Bidder.
- 18.5 In case, no defect occurs / appear to the work carried out under the contract till the completion of defect liability period and the Successful Bidder does not breach any terms/conditions of the contract, HPCL will return the bank guarantee.

19 COMPLIANCE TO TENDER ENQUIRY DOCUMENT

- I. Tender should be in exact compliance to the tender enquiry conditions. All Annexures duly filled up along with necessary documentation as requested in the tender enquiry and / or required to support Successful Bidder's claim must be enclosed with the tender in the first instance itself. Bidders have to specifically confirm the compliance to the tender enquiry conditions along with deviations, if any, specifically highlighted in the format given as Annexure III.
- II. Even if there are no deviations to HPCL tender enquiry, a NIL deviation form is required to be submitted as per format given in Annexure III with non-applicable clauses struck off.
- III. Any willful attempts by the Successful Bidder to camouflage the deviations by not mentioning them in the prescribed format may render the bid itself non responsive. In case the deviations are to be necessarily mentioned somewhere else in the bid, explicit reference of the same should also appear in the format for deviations given in Annexure III.

20 LIMITATION OF LIABILITY CLAUSE

The successful bidder (its partners, directors, staff, agents and associates) shall not be liable for any losses, damages, costs or expenses arising out of this engagement save in so far as they are and have been determined to have been directly and wholly caused by default of the successful bidder and in such circumstances the aggregate liability of the successful bidder shall be limited to an amount not more than the total fees actually payable by the sponsor for this engagement, but how ever there shall be no such limitation in case of misconduct or negligence of the Successful Bidder.

21 THIRD PARTY INSPECTION



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

Inspection by TPI Agency

Scope of Inspection by TPI Agency is as below Inspection of material/product

Approval of data sheets, drawings, QAP & other documentation etc. shall be done by HPCL. Vendor shall hire any of the following TPI agencies to carry out the inspection as per the approved QAP, drawings & data sheets and issue of dispatch clearance

Approved Third Party Inspection agencies for materials/ product are:

BV / EIL /DNV /ICS /Lloyds /IRS/PDIL/MECON/ Mott MacDonald

Third Party inspection report shall be submitted to HPCL for review & record. HPCL reserves the right to be involved and satisfy itself at each and every stage of inspection. HPCL shall be free to request specific test on any equipment considered necessary by them although not listed in this specification, the cost of performing all tests shall be borne by the Vendor.

Vendor shall note that acceptance of any equipment or the exemption of inspection or testing shall in no way absolve the Vendor of the responsibility for delivering the equipment meeting all the requirements specified in this document.

The inspection and testing shall include but not be limited to raw materials, components, Sub-assemblies, prototypes, produced units, guaranteed performance specifications etc. For factory inspection and testing, Vendor shall arrange all that is required e.g. quality assurance personnel, space, test gear etc. for successfully carrying out the job by the HPCL and/or his representative at Vendor's cost at the manufacturer's works.

Scope of inspection

Scope of Third Party inspection shall be as per the approved QAP unless otherwise specified in this document. All inspection and testing shall be carried out based on the following documents:

- a) Approved QAP
- b) Relevant standards
- c) Purchase Order Specifications
- d) Approved Data sheets
- e) Approved drawings

As a minimum, the following checks shall be included in the inspection

Conformance to the approved Data sheet.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

- Physical verification
- Material Of Construction
- Make, model number verification
- Functional performance checking.

Third Party Inspection at OEM's factory shall mandatory include, but not limited, to the following items:

- Cameras
- Network switches,
- · Servers and client machines,
- Network attached storage (NAS),
- Power & Communication Cables
- Cable tray and cable tray cover.
- TPI of imported items are limited to verification of OEM Test Certificates prior to equipment dispatch

22 SYSTEM ACCEPTANCE TEST

Final acceptance of the System is divided broadly into the following four stages:

- Inspection & Testing at OEMs works by Vendor's appointed & HPCL approved Third Party Inspection (TPI) agency
- Site Acceptance Test (SAT) at the location
- User Acceptance Test (UAT) at the location

The System shall be accepted after successful completion of all the above four stages

23 COMPLETION PERIOD

COMPLETION PERIOD: Timely implementation of the project is essence of this contract. Hence, only those Bidders having requisite capacity and capabilities and genuinely interested to meet our time lines are requested to participate in the Tender. Completion period - Four (4) months from the date of LOA / PO, whichever is issued earlier for all locations. Successful completion of SAT (compliance of Punch Points) shall be treated as completion.

NOTE: 1) Time for completion shall be reckoned from the date of issue of Letter of Intent/Purchase Order by HPCL. 1st Kick off meeting needs to be held within a week time of Issuance of LOA or PO whichever is earlier and Work needs to be started however completion period will be reckoned from LOA/PO Date only.

HINDUSTAN PETROLEUM CORPORATION LIMITED

- 2) Time for completion shall include the time required for mobilization, Procurement, execution, demobilization, carrying out the works, etc. as per requirements of Contract Document and instructions of HPCL Engineer-in-Charge.
- 3) Bidders shall have to deliver the material simultaneously to all locations and schedule Trainings for operation and maintenance at all sites to complete the Job within the time frame.
- 4) Completion period will be Location-wise.
- Video Management Software shall have capacity to accommodate the total number of cameras for the location. The item line for VMS is to be quoted for the total number of license for cameras, i.e., for existing as well as the new cameras being supplied.

HINDUSTAN PETROLEUM CORPORATION LIMITED

INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

DETAILED SCOPE OF WORK

OVERVIEW OF WORK

Scope of the job is to provide limited tender includes but is not limited to supply, installation, implementation, commissioning, training, providing user manual, providing 12 months warranty for the total solution including all hardware, software, materials, services and support etc. for providing an Integrated Video Surveillance System. All necessary cabling / wiring / sockets and allied infrastructure conforming to respective quality / standard norms are also included in the scope of this job.

At all the 44 locations full-fledged CCTV system exists which is to be augmented with additional cameras and its accessories that is to be supplied in this tender. Bidder need to ensure that new software should take care of existing cameras by integrating to the VMS in addition to the cameras to be supplied to the 44 locations.

HPCL reserve the right to handover existing CCTV camera (If available in open protocol) in working condition to bidder to interface with New CCTV software. Bidder scope is to interface the same and also require to take these camera under warranty.

HPCL reserves right to the add new cameras and all necessary cabling till the switch shall be done thru Third party by HPCL. NOC for such kind of work is deemed to be part of this job. Successful bidder shall not consider the dilution of the warranty as well CAMC for any such kind of addition. Necessary modification required for addition of any new camera during warranty will be required to be done free of cost during warranty & CAMC period. However, license charges of adding camera to the VMS during warranty as well as CAMC period, will be paid at the same rate of license charges quoted in this tender. HPCL will only procure the additional camera and do complete cabling till network switch (port to be identified by successful bidder at no cost to HPCL) however complete integration and software modification will be in scope of successful bidder. HPCL will only procure the additional camera and pay for the license charges as per tender rates to the successful bidder. However, complete integration including site visit if any required will be in scope of successful bidder.

HINDUSTAN PETROLEUM CORPORATION LIMITED

INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

APPROVAL OF DRAWINGS

a. Successful Bidder after placement of order shall be fully responsible to get all drawings approved from HPCL before supply. Approval of drawings by HPCL does not relieve the Successful Bidder from his responsibility of performance guarantee of equipment covered under this tender.

Drawings and Data Requirements to be submitted by Successful Bidder for the complete system. These documents shall have to be submitted by Successful Bidder in three sets after placements of Order.

b. Site Survey report

Major scope for site survey shall be

- a. Marking the Camera Positons on HPCL layout
- b. Marking cable scheme on HPCL layout showing ring topology
- c. Finalization of Schedule of Quantities (SOQ)
- d. Any scope of work which is under HPCL deliverable scope should be clearly mentioned in Site survey report
- c. Approval of Site Survey report is mandatory
- d. Technical Architecture of the proposed system
- e. Video Management Software specifications
- f. Hardware sizing and communication backbone as envisaged prior to commencement of job.
- g. Part list of all equipment.
- h. Certified test records of all equipment.
- i. Diagram of wiring connections.
- j. Test certificates for bought out items.
- k. Assembly and Installation details.
- I. Operation and maintenance manuals.
- m. All pertinent drawings.
- n. Completed Data sheets.
- o. Material specifications.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

SOLUTION OVERVIEW

GENERAL

- (a) Bidder shall design, supply, install, test and commissioning the Closed circuit television (CCTV) Surveillance System at the Plant. The purpose of the CCTV System is to monitor the facility operations & security surveillance from control room, security room & Plant Manager's room to keep eye on facility covering area of importance to the daily running of the plant to enhance Operational & Safety needs.
- (b) The requirement calls for a complete working system and not components thereof. Bids must be completed with all equipment and required accessories along with necessary power systems for the entire system & equipment, video connectors, patch connectors, patch leads, mounting and fitting hardware, plugs, sockets, and any hardware/software, supply of cables, network components, etc. as required for complete installation of the System under this contract.
- (c) The CCTV system shall consist of outdoor weatherproof high speed, day & night, dome cameras with integrated pan-tilt-zoom, fixed cameras, FLP fittings, color LED monitors and control keyboard located in control room (CR) and a slave monitors and control keyboard located at Plant Manager's Office, control room & monitoring workstation at Security Room. The cameras shall have Day & Night operation facility and automatic switching from color to black & white mode during night.
- (d) The CCTV Surveillance System shall include CCTV Cabinet with NAS, External array of hard disks, Workstations with Displays Monitors, control keyboard, Fiber Optic cables and CAT6 patch cords, Software for operation, control, utility software for infrastructure management, like network & security management, Remote Monitoring software with necessary accessories and fitting hardware, poles with mounting brackets etc.
- (e) The CCTV System shall be based on a digital network solution that enables video, data and/or audio streaming over an IP network. The proposed system should capture, store and analyze Video images
- (f) The cameras shall be provided with ID date/time stamp generators & create a tamperproof records/watermark for post event analysis. System should facilitate



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

- multiple viewing of live and recorded images and controlling of all cameras by the authorized users present in the CCTV LAN.
- (g) The selection of weather proof IP 66 or higher and flameproof /Exd IP66 or better shall be as per the hazardous area classification. Non-FLP camera shall be provided strictly in non-hazardous area only. All fittings shall be FLP in the hazardous area. The cameras shall be designed to withstand all weather conditions. The IP 66 or better rating and mounting details shall therefore take into consideration. Other details shall be as per data sheets. Non FLP camera with FLP enclosure in hazardous can be used meeting the tender specifications, bidder to quote accordingly.
- (h) All non FLP camera models, other than those supplied for Perimeter or main gate, shall be compatible to be used with FLP enclosure.
- (i) Existing cameras as per the list mentioned in the tender (Annexure B) shall be integrated seamlessly with new system. Bidder to quote for the same in the integration with the existing system as per line item (Installation and commissioning).

Scope:

- (j) Cameras locations shall be finalized based on site conditions like line of sight, maximum area coverage & no blind spot/area etc. HPCL shall confirm areas of plant to be monitored during detail engineering.
- (k) However tentative area of surveillance and type of cameras to be considered shall be as follows. Actual requirement at site may differ and will be finalized during detail engineering
- (l) Bidders to consider license required for VMS server including failover server.
- (m) Tentative location of the cameras at various areas within the Plants is listed in Annexure B. However actual nos of cameras and network components required to be work out through the OEM at the time of site survey. Positioning of layer 2 Network switches are to be made such that maximum nos of cameras at nearby locations depending upon port availability are connected to the switches in hybrid model.
- (n) Zoning has to be done in order to enable functioning of analytics with fixed cameras and tracing of the event through PTZ cameras wherever available.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

(o) Offered cameras (make and model) should not be at the path of obsolesces and spare support should be available at least for a period of 10 years after System commissioning. In case the OEM stops spare support during the Contract period, successful bidder are required to replace the faulty cameras with latest available cameras of similar specification at no additional cost to HPCL. Before closure of Last year CAMC, Vendor to give letter of assurance from all the OEMs for the remaining year then only last CAMC bill shall be released.

(p) SURGE /LIGHTNING PROTECTION SYSTEM:

Vendor to carry out a detailed survey/risk analysis in line with IEC 62305 for provision of Surge protection and lightning protection system in all equipment being installed as part of CCTV. Vendor to supply SPDs and lightning protection devices for the equipment.

Survey document to be submitted in form of report (through accepted software) in compliance with IEC 62305 requirements. Following details should form part of report.

- a. Type and rating of SPD
- b. Configuration
- c. Type coordination
- d. Connections and architecture

Survey is included in the vendor's scope of job & no separate payment for the same shall be made.

This Survey shall be carried & completed before Datasheet approval for all supply items. The datasheets/specifications Supply items submitted shall be incorporated with the survey recommendations & shall be submitted to HPCL for approval. Also any equipment failure due to surge or lighting shall be covered under warranty and CAMC and shall be replaced by bidder at no extra cost to HPCL.

6.2 PROPOSED INTEGRATED VIDEO SURVELLIANCE SYSTEM (CCTV)

It is intended to install CCTV system to track the Material movement, Recognition of persons and objects including vehicles through high quality images in and outside the HPCL location by Security. The recording of the scene can be used in investigation, recreating the scene and establishing the facts.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

The project envisages CCTV Surveillance System with upgradation of CCTV System at 44 locations of HPCL but not limited to the following:

- a) Before quoting vendors may visit for Sites survey mentioned in delivery address or need to talk with the location officers for understanding the site condition.
- b) Designing complete CCTV Solution as per SOQ and providing storage capacity of min 90 days.
- c) CCTV and VMS shall be camera agnostic and able to integrate any camera which is Onvif compliant
- d) Feature available in case HPCL wishes to have access of Surveillance system in HPCL Network from centralized Location like Zone, HQO etc.
- e) SITC (Supply, Installation, Testing and Commissioning) of CCTV required at site as per SOQ to meet design philosophy enclosed in Tender Documents
- f) Training to employees for operation and maintenance supplied and upgraded surveillance system.
- g) Supply and laying of power/control/signal cable in cable trench or cable tray
- h) Vendor shall install work stations with large size monitor at the following locations
 - I) Location In-charge cabin with minimum of 55" display
 - II) Security Room which will be manned 24 x 7 with minimum of 55" display
- i) Vendor shall provide Comprehensive Onsite Warranty for all goods/equipment supplied including parts replacement/repairs/ software & firmware support/upgrade and all service calls shall be attended within 48 hrs from the time of such calls.
- m) To the extent possible, cameras should be installed on the existing structures, buildings, flood light towers, watch towers etc. by providing necessary brackets, hooks, nuts & bolts. After exhausting all other options if the vendor feels the requirement of the poles, same needs to be erected by him. The total height of the poles should be 8 meters including foundation design to be submitted but the successful bidder and after approval same to be done. Plate ring shuttering to be done for the concrete above the ground level and to be painted with white wash. Same need to be done by bidder at no additional cost to HPCL.
- n) During commissioning, the following features shall demonstrated:



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

- I) Vendors shall demonstrate all the features as per Bid submitted in both day and night conditions.
- II) Bandwidth consumption should be low for each type of camera at HD resolution.
- III) The Dome camera shall have 360-degree endless rotation.
- IV) Vendors shall demonstrate H.265 on both primary and secondary streams in all their supplied models.
- o) Vendor should submit the catalogues and technical details, manuals for all the items after commissioning.
- p) The 'Maintenance Manual' to be supplied by the Vendor (three sets) shall include:
 - I) Methods of training and rectifying common service troubles.
 - II) Complete user guide for the system.

Functional design specification explaining principle, operations, dashboard, alarms events details, graphics etc. of the complete CCTV surveillance system to be submitted by successful bidder within 30 days of award of contract for HPCL approval.

- q) The CCTV cameras should be connected to network, comprising 8/12 port switch as per site conditions should be connected with CAT-6 & SPF, shall be laid at each location for transmission of signal to the Control Rooms. The Control Station shall have a Server (with Monitoring & Software (VMS)), NAS for Video Storage, monitor, workstation, UPS, Switch & PTZ Controller as required.
- r) The CCTV Server and NAS shall make **continuous recording of all cameras @15 fps, 1080 p for 2MP cameras and @ 15fps, 2160 p for 4 K cameras**. Storage size of NAS to be provided such that recording of all cameras will be available for 10 days at primary server and 90 days at NAS. Vendor need to design the system configuration accordingly. The recorded videos from the primary server shall be automatically transferred to the NAS storage device on daily basis supplied by the vendor on First In First Out basis and get deleted from the primary server after 10 days. There should be overlap of this 10 days data between server and NAS.

VMS shall have the capability to direct the recording on different NAS in such a manner that some of cameras are always stored in one NAS and other cameras on other NAS ensuring min 90 days storage availability. Existing NAS available at the locations is to



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

be expanded by supplying additional HDD of suitable capacity to ensure minimum storage of 90 days camera recordings. The item for HDD is to be quoted for per TB cost in this tender.

- r) All Outdoor fitting/ equipment shall be IP66 or better as mentioned in item specifications. Only FLP fittings/ equipment shall be used in hazardous area.
- s) Provision to add cameras with the existing system should be available depending on the future expansion plans.
- t) During detail design phase, requirement of storage space depending on the number of Cameras, type of cameras and configuration of cameras on complexity, duration, frame rates, day and night etc. to be calculated. Adequate storage space to be considered to have the required 90 days backup availably in any point of time.
- u) All cameras shall be connected in hybrid of ring and star topology. For the perimeter boundary, all devices deemed necessary for implementing the Ring topology should be considered. Layer 2 switches in field shall be able to communicate with Layer 2 switch in control room in loop topology in forward as well as backward communication. Based on the bandwidth requirement per camera, the no. of cameras per loop shall be finalized.
- v) All CCTV components like cameras, switches, servers, NAS etc., should be part of HPCL network. IP Schema for CCTV Network to be obtained from HPCL
- w) CCTV VMS system should be capable of integration with various HPCL subsystems and any third party applications which is on open protocol if required in future. Required protocol for these applications for any such integration shall be shared with third party/HCPL without any extra cost.
- x) Antivirus installation which be done by HPCL. HPCL is having two enterprise level Antivirus solution which are TrendMicro and Symantec. Accordingly VMS Software which are going to be installed in the server and client PCs should be compatible. Operating system with license shall be in the bidder scope.



- y) System should be able to generate Alerts for various exceptions of CCTV systems which are follows:
- I) Any Server/ Client machine Not Working / Not Responsive
- II) Failure of any Network between Server and NAS
- III) IP Camera/s not working
- IV) Critical Alert from Video Analytics Software for any exception
- V) Failure of any HDD in Server / NAS
- VI) Failure of any Switches
- VII) Break of network in field (either OFC/CAT-6)
- VIII) Network failure in the field/ cable cut
- z) To ensure full functionality of CCTV throughout the contract period, a robust service desk facility is available for call logging, monitoring and timely resolution of calls during warranty and AMC period. Service desk facility will have auto escalation of all calls to all concerned in case of non-resolution of calls as per time line of 48 hours. If the issues are not addressed and closed, penalty will be calculated accordingly. In case the vendor has resolved the issues and submitted the same in helpdesk and no action is taken on that service request by HPCL officer for more than 3 days, same shall be considered as deemed to be closed on the date of resolution and no further penalty shall be calculated on that service request.
- aa) Monitoring, Control & Storage application software should be capable to support:
- Multiple screen layouts and full screen display
- Multi-channel monitoring and recording simultaneously
- Manual, event driven and scheduler recording mode
- Remote digital output and input indicator
- Zero waiting database searching and event preview
- Remote PTZ camera control
- Hard disk storage indicator and alarm
- Audio monitoring / recording support
- Real-time monitoring, PTZ control & Recording
- Simultaneous real-time monitoring and audio and video recording
- High quality video, up to full-screen display
- Video stitching capability for a multiple no of cameras

HP

- Fast database searching
- Auto alarm
- Account-password protection
- Different recording modes: Event-driven, Scheduled and Manual recording for each camera
- The software should be capable enough to display video upto 64 channels on a single PC.
- The software should support the MPEG- 4/H.265 video compression
- The software should support minimum three detection windows for each channel with intelligent adaptive motion detection by modifying the sensitivity and object size.
- The playback should support various schemes with
 - o Date and time interval
 - o Event triggering with preview for every camera.
- ab) To monitor entry and exit of all vehicles and human beings at the main gate and keep recording of the same and required images of the trucks with number plates.
- ac) To provide overview of Tank truck parking area, Truck loading area, Tank truck unloading area for monitoring of proper vehicle movement and aid in avoiding congestion at any of these points.
- ad) To provide an overview of critical operating areas such as pump house, product storage area, Tank truck gantry etc. for monitoring of safe operating practices.
- ae) In case HPCL provide the video wall in control room at any of the location then Video wall software will be installed in the CCTV client machine of control room. vendor has to provide all necessary support to HPCL in installation of video wall software in client machine with no additional cost during Warranty or CAMC period.
- af) Architecture of the system should be fully modular and should be designed in a manner to enable the complete system to be gradually enhanced and enlarged according to the future operation, safety and security requirements of respective location. Vendor to provide line diagram for cable laying & also indicating positioning of camera & other equipment for all individual locations as a pre requisite for site hand over after completion of installation.



- ag) Necessary alarm/indication shall be raised at the security cabin/at the monitoring station indicating that there is motion in the marked area.
- ah) Power supply source to the camera and other outdoor & indoor equipment at site will be drawn from the UPS. Appropriate outdoor casings and housings of the same make as of camera should be used for the outdoor equipment.
- ai) The video management software will be used to configure the video management server, and once installation and setup are complete, the video management server should run seamlessly in the background to manage the connections, access and storage. Video management server should receive H.265 or better quality video across the network from Cameras. The server should stream incoming video and audio to a connected storage. VMS shall be able to export video files in .avi format and .mp4 format.
- aj) The vendor will commission the network as per the recommended architecture to achieve the Video surveillance requirements. However, wherever site conditions mandate a modification in the recommended architecture, the vendor should seek prior approval from HPCL before executing the job. Optimum speed, data transfer capabilities and video frame rates should be ensured by the vendor while implementing the solution.
- al) SOQ given in the tender is only indicative and are bound to change after detailed engineering. Payment shall be made only as per the actual execution in line with payment terms given in the tender. HPCL may also decide to drop any of the location/s all-together at any stage up to detailed engineering and HPCL decision in this regard shall be final and binding and there shall not be any time and cost implication.
- am) After commissioning the Video surveillance system, the same shall be demonstrated for all its capabilities to the relevant user department to make them familiar with the system on mutually agreed dates.
- an) CCTV system is primarily perceived as working on the concept of exception monitoring Hence for any exception (event as pre-defined in the system like Tripwire etc.) occurring, following alerts are required:
- i) event hand over by Fixed camera to the corresponding PTZ camera which starts tracking the object for a predefined time period &

HINDUSTAN PETROLEUM CORPORATION LIMITED

INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

- ii) Auto Pop up even on a blank computer screen with Audio / Visual alarm at all 3 monitors provided.
- ao) To ascertain the failure of network point network management system shall be part of the VMS.

In case of timely supply of material but delay in execution of installation/commissioning due to reason not attributable to the Vendor including non-availability of frontage, bidder to inform project manager and site in-charge in writing well before completion date and if reason found satisfactory for unexecuted portion, LD for supply of items will be not made.

Note: All related accessories of equipment's even if not stated explicitly in SOQ of Tender document, shall be provided by successful Bidder without any additional cost, including the cables, console/rack trays, etc., if required for installation of equipment.

The specifications of the Servers mentioned in the tender are the minimum. However during detailed design, if bidder finds that for required functionalities and performance, these servers require better configuration that will be under the bidders scope.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

6.3 CCTV System details:

- The overall Video system shall be connected via a dedicated and secured LAN network shall be built using fiber optic & CAT6 communication cables utilizing standard TCP/IP protocols. Based on bandwidth requirements, number OFC/CAT 6 networks need to be formed. The required LAN & network shall be provided as nearer as possible to the camera locations.
- 2. The CCTV Server to be installed at Control Room/ Server Room shall allow the storage of time-lapse and time stamped digital video images from all cameras. Video images shall be stored on a RAID-5 NAS unit with full watermarking and guarantees against tampered images.
- 3. All interfaces within CCTV shall be based on TCP/IP network protocol connectivity over the Intranet/LAN/WAN. The software shall facilitate viewing of live and recorded images and controlling all cameras for 24 hours a day and 7 days per week local and/or remote monitoring. VMS shall communicate with complete integrated system i.e. all servers and client machines part of CCTV system.
- 4. The system shall be able to select any cameras to any monitors. However, the system administrator shall be able to control the viewing/action rights of individual users.
- 5. System should provide inter-operability of hardware, OS, software, networking, printing, database connectivity, reporting, and communication protocols. System expansion should be possible through off-the-shelf available hardware. The system shall include a scalable architecture with hardware expansion capability to support the selection, monitoring and control of system devices possibly using simple user friendly GUI based maps, menus and left/right mouse click commands.
- 6. The System's server and its operating system shall be from the off the shelf available servers and shall not be Propriety Hardware.
- 7. The System shall ensure that the video once recorded, can't be altered, ensuring the audit trail is intact for evidential purposes.
- 8. The System shall have facility of camera recording in real-time mode (25 FPS)/15/12.5/10 or lower FPS as well as in any desired combination and system shall allow recording resolution and frame rate for each camera be user programmable.
- 9. The System shall be designed such that any failure in the system shall not affect the normal operation of the entire integrated system, the remaining system components

HINDUSTAN PETROLEUM CORPORATION LIMITED

INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

shall continue to operate with full functionality that is, no single – point of failure (SPOF).

- 10. CCTV Manufacturer must have base in India and service support team all parts of India. Manufacturer shall provide reference list of installation for similar products/components
- 11. The System shall have original License copy of operating System. All OS, VMS, Database etc. shall be perpetually licensed to HPCL
- 12. The System shall have facility to send auto e-mail / SMS facility on predefined address/ number in case of specific user defined Alarms generated in alarm Audit file/Events file through available LAN. IP scheme of CR equipment/field equipment shall be as per HPCL IP schema.
- 13. All software and firmware upgrades required for smooth functioning of the system shall be free of charge. Vendor should upgrade the software free of cost in case new versions are released during the Warranty and CAMC period. Vendor should ensure backward compatibility with all the hardware and other software at least for one generation, even if new versions of software are released.
- 14. During CAMC period, any software modifications for data exchange/ dashboard development etc. to CCTV system /Centralized software to be carried out by bidder without any additional cost to HPCL

HINDUSTAN PETROLEUM CORPORATION LIMITED

INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

6.5 GENERAL:

- 6.5.1 The system shall be designed by selecting high-grade components of proven quality and proper design of system electronics to ensure minimum down time.
- 6.5.2 The CCTV software shall be governed by the operating system running in a real time mode and shall be able to meet the minimum functional requirements as specified.
- 6.5.3 The system shall have an extensive set of self-diagnostic routines, which shall locate and identify the system failure at least up to individual equipment level.
- 6.5.4 The system shall be internally protected against system errors and hardware damage resulting from electrical transients on power wiring and signal wiring which may be generated by switching large electrical loads or by power line faults and connecting & disconnecting devices or removing or inserting printed circuit boards in the system .
- 6.5.5 Vendor shall integrate the existing camera & NAS available at locations as per detailed mentioned in this tender document.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

Mounting

The civil works shall also be part of the works involved and as per the descriptions under respective items of work.

- 1. Mounting of cameras: All cameras shall be mounted in the existing or MS hot dip galvanized pole (as per SOQ). The scope includes supply, erection and installation, supply of suitable brackets / stands, wiring, necessary civil works, etc.
- 2. Design, Supply, installation of Hexagonal poles of height 8m, hazardous area requirement as per HPCL norms and line of sight requirement) as required at site. Actual height shall vary as per the site-specific requirement as proposed by HPCL. The pole and foundation should be designed for the wind and soil bearing capacity of site (self-supporting type only). The design of pole must be Govt. Engineering College or NIT or IIT Approved.

Earthing

Each cabinet shall be provided with earthing systems. Electrical safety and cabinet steelwork earth, safety-grounding from all doors, racks, gland plates, poles and other metallic device shall be connected to safety earth bar.

All the CCTV equipment shall be provided with double earthing. Min 4 Sq. mm Copper wire shall get connected to the Copper/Brass Bus bar and double earthing wire should be taken to the nearest Earth Pit. OEM recommendation for connecting the earth pit shall be furnished along with the earthing scheme.

Electrical equipment shall be interconnected with earth grid - using minimum size 50 x 6 mm GI Earthing strip where ever required. Earthing shall conform IS 3043 - 2018, IE rules and statutory regulation.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

Cable termination accessories

Cable glands shall be provided for incoming and outgoing cables to prevent excessive stress on the individual Terminals. Double compression gland, Nickle plated brass glands with NPT threads shall be provided for termination of cables. Minimum engagement of the threads shall be as per IS 2148. The gland plates shall have gaskets so that the enclosure conforms to IP-54. Provision for terminating 1/2 core on to earth bus and neutral bus shall be made. All lugs shall be tined copper lugs only. All lugs and glands for all power and control cables shall be supplied with the equipment. All the cabling accessories to be provided by the vendor during job execution as per the requirement at no additional cost to HPCL.

Documentation

Documentation to be submitted shall include but not be limited to schematic drawings of the CCTV system with all the components shown, data sheets and catalogues of equipment offered, and operation and maintenance manuals.

Submission of following Drawings, data and Manuals

- ➤ Detailed datasheet, literature/ catalogues giving full particulars. Principle of operation, range and setting whether settings adjusting at site, colour, materials of equipment enclosures, degree of protection and mounting details for all types of equipment offered.
- > Detailed internal schematics and wiring diagram for
 - Control and viewing room setup
 - IP camera network
 - Cable layouts
 - Server set up
- > Functional design specification explaining principle and operations of the complete CCTV surveillance system.
- Material test and inspection reports and certificates.



- > Approved certificates obtained from competent authorities for use in hazardous atmospheres (wherever applicable).
- > Certificate of weatherproof and explosive license of equipment wherever applicable.
- > Training on system operation and maintenance for HPCL's staff at the site to be provided.
- > All the licenses OS, VMS, etc., should be in the name of HPCL and the documents to be provided with proper lamination.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

Security Guidelines for CCTV System:

Following security guidelines for a secure operation of the CCTV system shall become a part of the system being offered by the successful tenderer.

The security and authorizations should be implemented at the following areas:

- a) Operating system level
- b) Database level
- c) Application software level

a) Operating system:

Each and every user should be provided a User-ID with proper authorizations for logging into the operating system.

The System shall display the User-ID in the tool bar through which the User logs in the system. "Administrator" User-ID should be only be used for installation of software and any maintenance purposes. It should not be used for day-to-day operations. Users should not be allowed to login to the system with "Administrator" user for day-to-day operation.

Administrator User-ID and other user-IDs and passwords should be allowed to be changed. It should not be hard coded in the software or linked to machine address.

b) Database:

Normal operator Users should not be allowed to open and update the database directly. Only the Administrator should be allowed for any maintenance work to make changes to the database and all the changes made to the database should be logged. Administrator shall have separate login password & transaction password. Any changes in the System shall be allowed only after successful validation of these passwords. System shall have in-built check for having separate password. The password for Database (to be of level I as described below) shall be shared in a sealed envelope with Zonal/ HQO HSE team only and not with the site.

Database should be allowed to be updated only through the application with proper authorizations and should not be allowed to be updated directly unless otherwise specified in the tender.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

Security and authorizations should be implemented on a role based authorization system.

Referential integrity checks should be built into the database to maintain the integrity of the database. For all completed physical operations, the data recorded in the database should not be allowed to be updated / changed. All the changes to the database should be logged by the system and the same should be made available for any audit trial at a later date with time, date & Unique ID stamping Database logs should be backed up onto NAS and the same to be preserved for later use.

c) Application software:

Security and authorizations should be implemented on a role based authorization system. Application software should provide creation of various User Group with specific authorizations for the Group. Different User Group like Manager, Supervisor, Engineer, Operator etc. should be created and define Menu/ Screens and Add/ update / modify restriction for each group.

Application software should provide creation and maintenance of User IDs and attaching the various roles defined above to each and every individual at the location.

Testing and commissioning

Successful bidder shall submit the testing & commissioning format to HPCL for approval. Any amendments made by HPCL at any point of the contract shall be binding on the vendor.

The testing and commissioning document has to cover the following minimum points

- 1. Format for Verification of Make and model of equipment as per approved specs.
- 2. Format for Verification of quantity measurement as per approved SOQ.
- 3. Format for checking Installation of Equipment location wise as per approved layout, cabling scheme etc.
- 4. Format for Functional checking of System performance & software functional checks as per Tender document.

INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

- 5. Format for verification of
 - Video Frame @ 25 FPS/25 IPS.
 - Picture resolution during day and night for single camera individually and all cameras simultaneously.
 - Various camera settings
 - Video Loss alarm, Motion detection etc. as per Work Order
 - On line and Off Line Video Storage

A network, comprising a 12-port, 8-port & 4 ports switch each and media converters connected with CAT6, shall be laid for transmission of signal from cameras to the Control Stations. The Main Control Station shall have a Server (with Monitoring Software) and NAS for Video Storage, a monitor, a workstation and a Switch. The Sub-Control Station at Security Guard / Plant Manager room shall have a monitor for monitoring the Video only.

SYSTEM ACCEPTANCE CRITERIA

The system will be accepted by HPCL based on the following criteria:

- 1. All systems to be verified operational as defined in the Scope of Work above.
- 2. Surveillance system installed and functioning, as described in the FDS submitted.
- 3. All manuals and drawings are delivered to HPCL.
- 4. All software licenses are delivered to HPCL.
- 5. Proper Training imparted to the location staff with necessary manuals.

HPCL DELIVERABLES /SCOPE

- 1 HPCL shall make available the sites to the Successful Bidder to carry out the job from administrative point of view.
- 2 Successful Bidder should specify the space requirement as infrastructure for implementing his system based on which, HPCL shall ensure adequate space inside the location for placing the computer and other related equipment.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

6.7 TRAINING

- 1. The Successful Bidder will train HPCL personnel at two levels
- (a) Training for the workers/security staff at locations level
- (b) Training for HPCL officers at locations / any other places as desired by HPCL and trainings to cover

The vendor shall train in the following areas so as to make them fully familiar with the system and its day to day operation:-

- General design & system Engineering.
- VMS software and its completed operation and troubleshooting
- Operational & preventive maintenance of individual equipment & overall system trouble shooting for all the equipment.

The above training shall be conducted at the site during handing over of the system & during the Warranty period. Two such trainings shall be held every year in the Warranty Period. Each training module shall be of minimum 2 days. Training module shall be submitted by vendor to HPCL for approval

6.8 WARRANTY & CAMC

CCTV system is to be maintained for a period of five years after expiry of warranty period. Cost of all spares, equipment, instruments & services, (Preventive & Breakdown) to take care of maintenance, all statutory taxes and duties including entry tax etc. has to be borne by the Vendor during the AMC period.

• The Successful Bidder should maintain the whole system on an ongoing basis, during warranty period of one year & subsequently during the comprehensive Annual Maintenance Contract (AMC) after the completion of warranty period for 5 YEARS. During warranty period all materials / parts / services as required to maintain the system on an ongoing basis is included in the scope of the job and no extra payment will be made by HPCL.

- Provide service support during business hours, if and when required, besides such other support like a 24/7 telephonic assistance etc., as may be required so that the system operates on a continuous basis.
- Successful Bidder will be the single point contact for HPCL for all support related issues with respect to hardware / software installed by them. If any third party help is required in resolving any issue, it will be the sole responsibility of the bidders to arrange for such help.
- System Integrator (SI) shall submit the details of technical engineer for the site execution with the technical bid.
- During CAMC period Cost of all spares, equipment, instruments & services (Preventive & Breakdown) to take care of maintenance, all statutory taxes and duties including entry tax etc. has to be borne by the Vendor during the AMC period. In case of failure to attend, HPCL has right to get it attended through alternate agency at vendor's risk and cost.
- Any free issue equipment which becomes obsolete and an OEM certificate is provided in this effect, shall not be covered under CAMC for free of charge replacement.
- HPCL can terminate the annual maintenance contract by giving three months' notice in advance to the vendor.
- During warranty and CAMC period, any software modification/ configuration required for additional hardware integration will be in scope of Bidder.
- Comprehensive AMC comprises of the following services as a minimum
 - a) Routine maintenance service: This is an on-site maintenance, which should be carried out two times in a year. Purpose of visit is to check system health and problem solving. Vendor need to check the health of each and every equipment supplied during the tender, and health status of all the equipment should be covered in the report.
 - b) **Breakdown maintenance service**: In case of system breakdown, Vendor shall depute Engineers to restore the system at the earliest, within 48 Hours.

HP

HINDUSTAN PETROLEUM CORPORATION LIMITED

INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

- □ Note: Only HPCL reserves the right to adjust the visit schedule for any Half-yearly visit. However all visits should be required to be completed prior to end of year. Last half-yearly bill will be released only when all pending OEM visit, issues of particular year are resolved.
 - c) Software support and technical services: Software additions / modifications, technical assistance to Purchaser's Engineers, technical discussions with Purchaser's Engineers /Technicians at vendor's facility etc. are included.
 - c) Any Software/Hardware firmware upgrade should be included at no extra cost.
 - d) The personnel deployed to site shall have thorough knowledge of the system and at least two years of experience in maintenance of similar system.
 - f) Any Addition of new CCTV Camera will be free of cost during Warranty & CAMC period and HPCL will not pay any charges for Software Modification, Reports etc. The license required for additional cameras in VMS will be paid to the successful bidder as per the rate quoted for license charges in the tender.
 - g) If cameras need to be repositioned during the warranty or CAMC period, same need to be done during CAMC visits by extending 2-3 days, however the repositioning is confined to 4 cameras in a year. Cost involved in shifting the cameras, cables etc. will be in HPCL scope. Supervision, reports will be in successful bidder scope.
 - h) If any remote support is required same need to be extended to the location as and when required.

Half-yearly prorated payment of finalized CAMC amount for respective year will be made after successful completion of each half-year of respective post warranty CAMC year. Vendor has to Submit the bills to CPC-CPO along with Site visit report duly signed with officer in charge for the payment of Half-yearly CAMC amount.



INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

During Warranty period, Vendor has to arrange the mandatory Preventive Maintenance visit once in 6 Month for minimum 2 days per visit (2 per year). In case vendor has not arranged the Mandatory Maintenance visit during the warranty period then Rs. 50,000/- per visit shall be deducted from Retention Money / Contract BG during warranty period. HPCL reserves the right to adjust the Mandatory preventive visit in case of exigencies however all pending visit has to close within same year.

CAMC charges shall be quoted in absolute amount (not in %) against line items pertaining to CAMC in SOQ. However, the total CAMC charges for 5 years shall be at least 7.5 % of the total Capital cost for the project (for all items of tender SOQ for that location and rate quoted for Software license and integration divided equally amongst each location excluding CAMC line items for that location) to ensure that the system is maintained throughout the CAMC period as envisaged.

If after opening of priced bids, it is observed that the L1 vendor has quoted less than 7.5% for all the 5 years, then the item wise unit rates quoted by the vendor towards SOQ items excluding CAMC lines shall be proportionately reduced and the item wise unit rates quoted towards the CAMC lines shall be proportionately increased in such a way as to ensure that the CAMC charges for each year shall be minimum 7.5% of the total Capital cost for the project and further ensuring that the total bid value of the schedule remains constant. In case the vendor quotes higher amount of CAMC, the quoted amount shall be retained.

Final CAMC value after project execution will be in proportion to actual capital project executed at respective sites. CAMC percentage will be calculated as per quote submitted by the vendor. CAMC PO at the calculated CAMC percentage will be placed at the final project execution capital cost.

Penalty will be charged during warranty & CAMC period as given below

Half-yearly Payments will be made as per the detailed terms & conditions for AMC contracts as mentioned in the Technical Specifications of this tender. Liquidated damages shall be applicable as per the CAMC clause and summarized below



- a) Date of reporting of issue will be taken from date of submission of issue on Mail Communication or issue logged in portal by Location Officer to Authorized coordinator of vendor by 1400 Hrs. on HPCL working days. In case Issue reported after 1400 hrs on working days or Holiday then Date of reporting will be taken from Next working day. Sunday & National Holiday will not be considered as Location working days in case location operated on these days.
- b) Total deduction per Half-year will be done on from CAMC payments, If it exceed then amount will be adjusted from next half-year bills. Total deductions cannot exceed the CAMC PO amount for that year.
- c) Penalty Amount will be calculated as a percentage of basic value of Half-yearly CAMC amount. The Penalties for each parameter is mentioned in the table below. Additionally, GST applicable on the total calculated value of penalty shall be deducted.
- d) Penalty against any one issue can be calculated for a maximum period of 60 HPCL working days in each Half year. In case issue is not resolved by vendor in the same half year, then the same will be carried forward to next half-year and penalty shall be computed for a maximum period of another 60 days in that half-year & so on, till the issue not resolved by vendor.
- e) Location will deduct the Penalty on the recorded deviation either in same halfyear or maximum by Next Half-year. Copy of LD Calculation sheet will be shared to vendor based on request receive from vendor.
- f) In case any reported issue comes under two penalty area or Main system fails which effect subsystem then penalty will be calculated for main system as per below table.
- g) Penalty for the free issue items to successful shall not be applicable
- h) Vendor need to maintain the required spares at location as mentioned tender.



Sr.no	Parameter			Liquidated Damages
	CCTV Camera CCTV camera should to check in each Pre		Jptime Report of al	ll camera should require
1	Perimeter Camera	Not Working /Power Off /Not Visible display/Offline	Within 7 working days of reporting	Per camera 0.25% of half-yearly cost of AMC for delay in each working day (HPCL working days) up to a maximum period of 60 working days in each Half-Year.
2	Dome Camera	Not Working /Power Off /Not Visible display/Offline	Within 7 working days of reporting	Per camera 0.25% of half yearly cost of AMC for delay in each working day (HPCL working days) up to a maximum period of 60 working days in each Half-Year
3	Fixed /PTZ Camera (All Type)	Not Working /Power Off /Not Visible display/Offline	Within 7 working days of reporting	Per Camera 0.25% of half yearly cost of AMC for delay in each working day (HPCL working days) up to a maximum period of 60 working days in each Half-Year



4	Network Switch Failure	In Case Switch Fails , Then There is no Communication with all Cameras then Camera Wise Penalty will not impose, only Switch related penalty will be imposed.	Within 4 working days of reporting	0.5% of Half-yearly cost of AMC for delay in each working day (HPCL working days) up to a maximum period of 60 working days in each Half-Year
5	Replacement of faulty Spares	Spares as per Section 6 (warranty Spares) need to maintain during defect liability/ warranty period	Within 45 working days of reporting	Per Equipment 0.25% of Half-yearly cost of AMC for delay in each working day (HPCL working days) up to a maximum period of 60 working days in each Half- Year
6	Server PC	Server PC is offline	days of reporting	2.5% of Half-yearly cost of AMC for delay in each working day (HPCL working days) up to a maximum period of 60 working days in each Half-Year
7	NAS	Any Hard disk Failure of NAS	days of reporting	2.5% of Half-yearly cost of AMC for delay in each working day (HPCL working days) up to a maximum period of 60 working days in each Half-Year

HP

HINDUSTAN PETROLEUM CORPORATION LIMITED

INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

8	Client PC/ Monitor/ Accessories	PC is offline / data is not visible	Within 15 working days of reporting	Per client PC 0.5% of Half yearly cost of AMC for delay in each working day (HPCL working days) up to a maximum period of 60
				working days in each Half- Year

- k) Only genuine spares from OEM should be used for the service /maintenance during warranty. During warranty period vendor shall carry out Half-Yearly preventive maintenance without fail.
- I) Sufficient spares shall be available in stock with the vendor and undertaking from the manufacturer for availability of spares in stock for at least 10 years from system commissioning at site.

6.9 SCALABILITY

- 1. The system design shall permit the on-line addition of new system / subsystems (new work station, peripherals, cameras, encoders etc.) with no disruption to either the operation or system communications for future expansion. The offered software should have in-built capability / provision to take care for future expansion and new services & features etc. The user configurable menu driven modules should be available in the software for any addition/deletion/change in the Plant configurations. System should be scalable to meet additional business, safety and security requirement of the locations.
- 2. The system should be scalable to interface with HPCL network/Switches.
- 3. All system communications shall be based on the ISO, Open system Interconnect (OSI) reference model. All communication solutions should be Ethernet Based.

6.11 SCOPE OF WORKS- INCLUSIONS

a. Works Included: The Scope of work has been covered in the above specifications in general. However, the Successful Bidder shall be responsible to complete the works in all Page ${\bf 43}$ of ${\bf 44}$

HP

HINDUSTAN PETROLEUM CORPORATION LIMITED

INTEGRATED VIDEO SURVEILANCE SYSTEM (CCTV) AT 44 LPG LOCATIONS

respects and in doing so, provide/supply all facilities not covered above specifically, but nevertheless required for the satisfactory performance of complete system. Detailed Scope of job includes survey of all the locations to estimate the exact nos. of cameras and other allied items as per discussion with concerned authority of HPCL, Delivering the SOQ to locations, Joint Material inspection at site with Location In Charge / His representative, Installation / Commissioning, imparting Training to location staff & Handing over the site to the Location In Charge. Dependency on HPCL is limited to providing adequate space to install the equipment, & providing power connection. Exact requirement with respect to these points to be made clear to the location In Charge during the time of survey so that no confusion arises afterwards regarding site clearance for installation job. Bidder has to abide by all safety regulations & other rules as applicable inside Location premises, while carrying out the job.

b. Additional Works Included: Existing Watch towers, Light poles, building tops can be considered for mounting camera and other equipment. Additional poles/towers etc. if required will be constructed separately & cable supply & laying also included in the vendors scope and payment will be made as per line items. Power will be provided by the locations. All protective devices, ELCB, MCB, Video cable etc. and miscellaneous accessories for commissioning of entire Systems are in Vendor scope. No separate Payments will be made for any other items (Including supply/Installation) associated with Installation commissioning Jobs.

SECTION 4.0:

Technical Specification of Various Hardware and Software required

1. Approved Make:

Applicable for all items mentioned in approved make section of the tender document: Bidder can supply equivalent Indian make products complying with specification mentioned in the tender document. For each of such products, bidder to provide certificate from Customers (any Government Organization Central/State/PSU and at any locations across India) in the attached format (in form of letter or email) for minimum three years proven track record for satisfactory performance of the products installed in Industrial premises like Oil & Gas Installation, Fertilizer & Chemical Plants, Petrochemicals Plants, Power plant etc. Such PTR certificate for any industrial grade product should mention that the product is being installed in an Industrial environment and in harsh weather condition. Proven track record for cameras, switches, servers, client machine, video management software, cables to be submitted in technical bid document for other than mentioned approved make.

2. Regulatory and Compliance:

- For flameproof cameras, (Fixed type & PTZ type both): Mandatory requirement of PESO with hazard classification Exd IIC T6 and IP66 or better.
- For all types of Cameras required in this tender: Certification for UL or FCC or CE or equivalent Indian Standard is required.
- For all types of supply equipment required in this tender: Indian equivalent certifications will be accepted with reference to any International certifications mentioned in specifications.

Format for Proven Track Record

< Customer Letter Head>

Date:

Performance Certificate

M/s XXXXXXX has successfully supplied and installed & Model) at Plant Address / Multiple Locations against oudated The product has been in use in industrial encase product is industrial grade). The same has been in use for tworking satisfactorily. We also confirm that Service and Suppothis period.	vir Purchase Order No vironment in harsh weather condition (in the last (min 3 Years) and has been
	Signature : Name : Designation:

1. Specification For HD IP Fixed Dome Camera with IRF and MFZ lens (DOME CAMERA)

		HD IP Fixed Dome Camera with IRF and MFZ lens (INDOOR DOME CAMERA)
S.No.	Parameter	Functionality
1	Compression	A. The IP Camera shall process and compress video images into digital data files utilizing H.264 or better compression technology.
2	Integration	The camera shall integrate with VMS of the approved makes.
3	Lens	MFZ Lens 3-9 mm/ 4.6-12 mm (Motorized Focus & zoom) or better, Min 10X Digital Zoom
4	Video Streams	Minimum 3 Compressed streams from the IP Camera; 1 st stream-2 MP at 25 fps 2 nd stream- 1080p at 15 fps 3 rd stream- vendor to specify
5	Power over Ethernet	Provision shall be there for both PoE as well as without PoE power supply
6	Resolution	2MP Full HD images up to 25 fps
7	Low Light Performance	Camera shall offer Infrared LED illuminators that function to a range of up to 20 meters which can be set to automatic, always on, or always off); Day – 0.3lux, Night – 0.01 lux.IR sensor inbuilt or external shall be acceptable to meet the performance

8	Camera Operating System	The IP camera shall utilize an embedded stable OS that resides on onboard non-volatile flash memory. It shall not reside on internal or external Hard Disk Drives. The camera shall not use a standard PC based OS and should not require constant virus or OS patch management for proper security protection
9	Storage and Network Optimisation	The camera shall provide a constant bit rate mode where the bit rate and the quality parameters can be set to perfectly match the storage and network requirements
10	Pickup Device	1/2.8" or better type CCD/CMOS/MOS Sensor
11	Authentication and protection	The camera shall use an Unalterable Image Format to maintain the security and integrity of the digital video files.
12	Communications	Ethernet Port along with programmable capability for static or dynamic (DHCP) IP addressing
13	Protocol Support	The camera shall support the following protocols: TCP/IP, HTTP, UDP, DNS, SMTP, RTP, RTSP, SNMP, IGMP,HTTPS protocols
14	Remote Programming Functions	a. Ability to change the network configuration of the camera, including IP address, gateway and port information, transmission protocols, security protocols and other values pertaining to standard network configuration
		b. Simple video stream viewing via the web client
		c. Ability to adjust compression level
	L	

		d. Ability to adjust frame rate
		e. Ability to adjust traditional CCTV camera settings including:
		i. White balance- Automatic/Manual
		ii. Contrast
		iii. Auto-iris control
		iv. Shutter speed
		v. Exposure time
		g. Password Management
		h. Camera title
		A. Operating Temperature: 0° to 60 ° C
		B. Humidity: 10 to 90% non-condensing.
		C. IP66 Compliance
15	Environmental protection (Housing)	
		A. UL
1.0	Regulatory and	B. FCC
16	Compliance	C. CE
		Note: Indian equivalent approval will be acceptable
17	Effective Pixels	1920*1080(2MP)
18	Scanning System	Progressive Scan
19	Day & Night	TDN (Auto ICR / Color / B/W)

20	Image setting	Brightness,Contrast,Saturation,Sharpness,Anti- flicker,Exposure,White Balance, WDR, BLC,Mirror,Flip,3D NR
21	AGC	On / Off
22	Signal-to-Noise Ratio	More than 50dB
23	Wide Dynamic Range	(Min 120 DB) or better
24	Television System	PAL
25	ONVIF S & G profile compliance	Required
26	Bit Rate	32kbps - 8Mbps continuously adjustment CBR/VBR
27	On-board storage	supportable up to 64 GB SDXC/SD Memory recording
28	Video Compression	H.265
29	Ethernet	10Base-T / 100Base-TX, RJ-45 connector
30	Streaming	Simultaneously multi-profile streaming Controllable frame rate and bandwidth Constant and variable bit rate
31	Users	At least 5 users
32	View Material	Vandalproof (IK-10 or equivalent) with Poly Carbonate
33	Power supply	Vendor to specify.
34	Power Consumption	As per POE standard.
35	Mounting	Shall be pole with stand/wall mounted/ceiling mounted with suitable brackets including sun-shroud/canopy
36	Surge/Lightening Protection	Required (Internal/External) in compliance with IEC 62305 requirements

37	Security	Authentication, IP Filter, User access log, Digest Authentication, IEEE802.1x
38	SD Card	Mandatory. The camera shall be able to record during an alarm/ event or in case of network failure. constant overwrite or to stop recording when the
		card is full and notify the administrator that the card is full
		It shall be provided with 64 GB SD Card
39	Backlight Compensation	ON/OFF
40	Colour, Brightness,Contrast	Functionality Required
41	Electronic Shutter	1/25 to 1 / 10000 s or better
42	Digital Noise Reduction/ 3D noise reduction	ON/OFF
43	Automatic Lens Control	Automatic Iris
44	Focus	Automatic
45	Cooling Fan /Heater	
46	Upgrade	Through web browser, online, firmware upgrade
47	Controls	Camera shall be remotely controllable and configurable.

2. Specification For HD IP Fixed Bullet cameras (Non FLP & 8 MP - 4K resolution with Motorized Zoom)

		HD IP Fixed Bullet cameras (Non FLP & 8 MP – 4K resolution with Motorized Zoom)
Sr .No.	Parameter	
1	Compression	A. The IP Camera shall process and compress video images into digital data files utilizing H.264 or better compression technology.
2	Integration	The camera shall integrate with VMS of the approved makes.
3	Lens	MFZ 3-12 mm or 4.5 mm-10 mm (Motorized Focus & zoom) or better, Min 10X Digital Zoom
4	Video Streams	Minimum 3 Compressed streams from the IP Camera; 1 st stream- 8 MP at 25 fps 2 nd stream- 2MP at 15 fps 3 rd stream-vendor to specify
5	Power over Ethernet	Provision shall be there for both PoE as well as without PoE power supply
6	Resolution	8MP Full HD images up to 25 fps
7	Low Light Performance	Camera shall offer Infrared LED illuminators that function to a range of up to 20 meters which can be set to automatic, always on, or always off); Day – 0.3lux, Night – 0.01 lux.IR sensor inbuilt or external shall be acceptable to meet the performance

8	Camera Operating System	The IP camera shall utilize an embedded stable OS that resides on onboard non-volatile flash memory. It shall not reside on internal or external Hard Disk Drives. The camera shall not use a standard PC based OS and should not require constant virus or OS patch management for proper security protection
9	Storage and Network Optimization	The camera shall provide a constant bit rate mode where the bit rate and the quality parameters can be set to perfectly match the storage and network requirements
10	Pickup Device	1/2.8" or better type CCD/CMOS/MOS Sensor
11	Authentication and protection	The camera shall use an Unalterable Image Format to maintain the security and integrity of the digital video files.
12	Communications	Ethernet Port along with programmable capability for static or dynamic (DHCP) IP addressing
13	Protocol Support	The camera shall support the following protocols: TCP/IP, HTTP, UDP, DNS, SMTP, RTP, RTSP, SNMP, IGMP,HTTPS protocols
14	Remote Programming Functions	a. Ability to change the network configuration of the camera, including IP address, gateway and port information, transmission protocols, security protocols and other values pertaining to standard network configuration
		b. Simple video stream viewing via the web client
		c. Ability to adjust compression level

		d. Ability to adjust frame rate	
		e. Ability to adjust traditional CCTV camera settings including:	
		i. White balance- Automatic/Manual	
		ii. Contrast	
		iii. Auto-iris control	
		iv. Shutter speed	
		v. Exposure time	
		g. Password Management	
		h. Camera title	
		A. Operating Temperature: 0° to 60 ° C	
		B. Humidity: 10 to 90% non-condensing.	
		C. IP 66 Compliance	
15	Environmental protection (Housing)	D. Housing shall include Heater and sun-shroud with suitable mount.	
		A. UL	
	Regulatory and	B. FCC	
16	Compliance	C. CE	
		Note: Indian equivalent approval will be acceptable	
17	Effective Pixels	3264*2448 (8MP)	
18	Scanning System	Progressive Scan	
19	Day & Night	TDN (Auto ICR / Color / B/W)	
20	Image setting	Brightness, Contrast, Saturation, Sharpness, Anti- flicker, Exposure, White Balance, WDR, BLC, Mirror, Flip, 3D NR	

21	AGC	On / Off
22	Signal-to-Noise Ratio	More than 50dB
23	Wide Dynamic Range	(Min 120 DB) or better
24	Television System	PAL
25	ONVIF S & G profile compliance	Required
26	Bit Rate	32kbps - 8Mbps continuously adjustment CBR/VBR
27	On-board storage	supportable up to 64 GB SDXC/SD Memory recording
28	Video Compression	H.265
29	Ethernet	10Base-T / 100Base-TX, RJ-45 connector
30	Streaming	Simultaneously multi-profile streaming Controllable frame rate and bandwidth Constant and variable bit rate
31	Users	At least 5 users
32	View Material	Vandalproof (IK-10 or equivalent) with Poly Carbonate
33	Power supply	Vendor to specify.
34	Power Consumption	As per POE standard.
35	Mounting	Shall be pole with stand/wall mounted/ceiling mounted with suitable brackets including sun-shroud/canopy
36	Surge/Lightening Protection	Required (Internal/External) in compliance with IEC 62305 requirements
37	Security	Authentication, IP Filter, User access log, Digest Authentication, IEEE802.1x
38	SD Card	Mandatory. The camera shall be able to record during an alarm/ event or in case of network failure. constant overwrite or to stop recording when the
		card is full and notify the administrator that the card is full

		It shall be provided with 64 GB SD Card
39	Backlight Compensation	ON/OFF
40	Color, Brightness, Contrast	Functionality Required
41	Electronic Shutter	1/25 to 1 / 10000 s or better
42	Digital Noise Reduction/ 3D noise reduction	ON/OFF
43	Automatic Lens Control	Automatic Iris
44	Focus	Automatic
45	Cooling Fan /Heater	
46	Upgrade	Through web browser, online, firmware upgrade
47	Controls	Camera shall be remotely controllable and configurable.

3. Specification For HD IP Fixed Outdoor Camera

	FIXED DAY/ NIGHT IP BOX TYPE HD CAMERAS WITH FOCAL LENGTH 2.8 TO 12 MM		
Sr. No.	FEATURE	REQUIRED PARAMETERS	
1	Pickup Device	1/2.8" or better type CCD/CMOS/MOS Sensor	
2	Туре	IP CAMERA (Analog camera with Encoder is not acceptable)	
3	Pixels	Total pixels: 1920*1080P	
4	Television System	PAL & NTSC	
5 1	Scanning system	Progressive	
6	Sync system	Internal / External	
7	Horizontal Resolution	HD @25/30FPS	
8	Wide Dynamic Range	Atleast 90 db or better	
9	Min. illumination	0.5 lux – day at colored mode, 0.12 lux - Color SENS UP 0.03 lux – night (Mono SENS UP) (With IR cut Filter)	
10	Shutter	Digital, Auto/Manual Selectable. Speed :1/251/10,000	
11	Electronic Exposure	On/Off	
12	S/N Ratio	More than 50 dB	
13	Image Compression	H.265/MPEG-4, Three Stream	
14	Iris	Auto / Manual iris	
15	Lens	Veri-focal megapixel lens	
16	Lens Focal Length	2.8 to 12 mm with Auto Back Focus or better (Vendor to specify focal length of camera offered & confirmation about range of view required)	
17	Day & Night Operation	Automatic switch over from daylight color operation to a higher sensitivity night monochrome mode when the light levels fall below an adjustable threshold level	
18	Power source	Power to be sourced from UPS of adequate capacity 12V DC /230 V AC. 3 Phase/1 phase AC supply will be provided by HPCL (230+/- 10 %)V	
19		0 °C to +50 °C (90%)	

	Operating temperature & Humidity	
20	Housing / Dome	IP66 certified (for outdoor application), weather-resistant package. Having in-built surge & limited lightening or external surge and limited lightening protection shall be provided.
		alumininum / S.S. body
		Easy cable routing
		Tamper Resistant
21	Certifications	CE & FCC or UL
22	View material	Polycarbonate / Tempered glass / acrylic plastic or equivalent
23	POE	As per IEEE 802.3af
24	Connectivity	Ethernet, RS 485 / Open IP STANDARD
25	Mounting	As per site condition / Pole
26	Audio features	Audio unidirectional streaming with mute feature
27	Surge protection	Min. Electrical & signal surge protection. Shall be built-in or external device compatible with specified models shall be available
28	In-built analytics	Motion detection, object removal, Object counting, Abandoned object, Camera sabotage, Trip wire, Crowding
29	Aspect ratio	Compatible for HD (16:9)
30	Security	Password protected
31	Supported Protocols	Ethernet / Support protocol 802.3 and IETF Standards, 10/100 Base-T Ethernet, RTP/RTCP,TCP, UDP, ICMP, SNMP, HTTP, FTP, TELNET, MULTICAST, ARP and IGMP.
32	I/O Points	1 Input & 1 Output point.
33	Accessories	The cost of camera shall include all the required mounting accessories, brackets, connectors, viz. POE connectors etc. required to connect camera with CAT-6 cable
34	Make	Axis/Panasonic/Infinova/Sony/Mobotix/Bosch/Pelco / Samsung / LG / Honeywell, Dvtel/Verint / Hitachi / Indigo Vision / GE, makes of any VMS/VAS suppliers.
35	Compliance	The camera shall be ONVIF Compliant
	<u> </u>	·

FIXED DAY/ NIGHT IP BOX TYPE HD CAMERAS WITH FOCAL LENGTH 12 TO 50 MM		
Sr. No.	FEATURE	REQUIRED PARAMETERS
1	Pickup Device	1/2.8" or better type CCD/CMOS/MOS Sensor
2	Туре	IP CAMERA (Analog camera with Encoder is not acceptable)
3	Pixels	Total pixels: 1920*1080P
4	Television System	PAL & NTSC
5	Scanning system	Progressive
6	Sync system	Internal / External
7	Horizontal Resolution	HD @25/30FPS
8	Wide Dynamic Range	Atleast 90 db or better
9	Min. illumination	0.5 lux – day at colored mode, 0.12 lux - Color SENS UP 0.03 lux – night (Mono SENS UP) (With IR cut Filter)
10	Shutter	Digital, Auto/Manual Selectable. Speed :1/251/10,000
11	Electronic Exposure	On/Off
12	S/N Ratio	More than 50 dB
13	Image Compression	H.265/MPEG-4, Three Stream
14	Iris	Auto / Manual iris
15	Lens	Veri-focal megapixel lens
16	Lens Focal Length	12 to 50 mm with Auto Back Focus or better (Vendor to specify focal length of camera offered & confirmation about range of view required)
17	Day & Night Operation	Automatic switch over from daylight color operation to a higher sensitivity night monochrome mode when the light levels fall below an adjustable threshold level
18	Power source	Power to be sourced from UPS of adequate capacity 12V DC /230 V AC. 3 Phase/1 phase AC supply will be provided by HPCL (230+/- 10 %)V
19		0 °C to +50 °C (90%)

	Operating temperature & Humidity Housing / Dome	IP66 certified (for outdoor application), weather-resistant package. Having in-built surge & limited lightening or external surge and limited lightening protection shall be provided.
	Certifications	Alumininum / S.S. body
20		Easy cable routing
		Tamper Resistant
		CE & FCC or UL
21	View material	Polycarbonate / Tempered glass / acrylic plastic or equivalent
22	POE	As per IEEE 802.3af
23	Connectivity	Ethernet, RS 485 / Open IP STANDARD
24	Mounting	As per site condition / Pole
25	Audio features	Audio unidirectional streaming with mute feature
26	Surge protection	Min. Electrical & signal surge protection. Shall be built-in or external device compatible with specified models shall be available
27	In-built analytics	Motion detection, object removal, Object counting, Abandoned object, Camera sabotage, Trip wire ,Crowding
28	Aspect ratio	Compatible for HD (16:9)
29	Security	Password protected
30	Supported Protocols	Ethernet / Support protocol 802.3 and IETF Standards, 10/100 Base- T Ethernet, RTP/RTCP,TCP, UDP, ICMP, SNMP, HTTP, FTP, TELNET, MULTICAST, ARP and IGMP.
31	I/O Points	1 Input & 1 Output point.
32	Accessories	The cost of camera shall include all the required mounting accessories, brackets, connectors, viz. POE connectors etc. required to connect camera with CAT-6 cable
33	Make	Axis/Panasonic/Infinova/Sony/Mobotix/Bosch/Pelco / Samsung / LG / Honeywell, Dvtel/Verint / Hitachi / Indigo Vision / GE, makes of any VMS/VAS suppliers.
34	Compliance	The camera shall be ONVIF Compliant

4. Specification For Non-FLP HD IP Fixed Cameras (2MP) with motorized Zoom

		Non-FLP HD IP Fixed Cameras (2MP) with motorized Zoom
S.No.	Parameter	
1	Compression	A. The IP Camera shall process and compress video images into digital data files utilizing H.264 or better compression technology.
2	Integration	The camera shall integrate with VMS of the approved makes.
3	Lens	MFZ Lens of 3-9mm or 2.8-12 mm (Motorized Focus & zoom) or better, Min 10X Digital Zoom
4	Video Streams	Minimum 3 Compressed streams from the IP Camera; 1 st stream- 2 MP at 25 fps 2 nd stream- 1080p at 15 fps 3 rd stream- vendor to specify
5	Power over Ethernet	Provision shall be there for both PoE as well as without PoE power supply
6	Resolution	2MP Full HD images up to 25 fps
7	Low Light Performance	Camera shall offer Infrared LED illuminators that function to a range of up to 20 meters which can be set to automatic, always on, or always off); Day – 0.3lux, Night – 0.01 lux.IR sensor inbuilt or external shall be acceptable to meet the performance

8	Camera Operating System	The IP camera shall utilize an embedded stable OS that resides on onboard non-volatile flash memory. It shall not reside on internal or external Hard Disk Drives. The camera shall not use a standard PC based OS and should not require constant virus or OS patch management for proper security protection
9	Storage and Network Optimization	The camera shall provide a constant bit rate mode where the bit rate and the quality parameters can be set to perfectly match the storage and network requirements
10	Pickup Device	1/2.8" or better type CCD/CMOS/MOS Sensor
11	Authentication and protection	The camera shall use an Unalterable Image Format to maintain the security and integrity of the digital video files.
12	Communications	Ethernet Port along with programmable capability for static or dynamic (DHCP) IP addressing
13	Protocol Support	The camera shall support the following protocols: TCP/IP, HTTP, UDP, DNS, SMTP, RTP, RTSP, SNMP, IGMP,HTTPS protocols
14	Remote Programming Functions	a. Ability to change the network configuration of the camera, including IP address, gateway and port information, transmission protocols, security protocols and other values pertaining to standard network configuration
		b. Simple video stream viewing via the web client
		c. Ability to adjust compression level

		d Ability to a discretific
		d. Ability to adjust frame rate
		e. Ability to adjust traditional CCTV camera settings including:
		i. White balance- Automatic/Manual
		ii. Contrast
		iii. Auto-iris control
		iv. Shutter speed
		v. Exposure time
		g. Password Management
		h. Camera title
		A. Operating Temperature: 0° to 60 ° C
	Environmental protection (Housing)	B. Humidity: 10 to 90% non-condensing.
		C. IP 66 Compliance
15		D. Housing shall include Heater- Blower kit and sun-shroud with suitable mount.
		A. UL
	Regulatory and Compliance	B. FCC
16		C. CE
		Note: Indian equivalent approval will be acceptable
17	Effective Pixels	1920*1080(2MP)
18	Scanning System	Progressive Scan
19	Day & Night	TDN (Auto ICR / Color / B/W)
20	Image setting	Brightness, Contrast, Saturation, Sharpness, Anti- flicker, Exposure, White Balance, WDR, BLC, Mirror, Flip, 3D NR

21	AGC	On / Off
22	Signal-to-Noise Ratio	More than 50dB
23	Wide Dynamic Range	(Min 120 DB) or better
24	Television System	PAL
25	ONVIF S & G profile compliance	Required
26	Bit Rate	32kbps – 8Mbps continuously adjustment CBR/VBR
27	On-board storage	supportable up to 64 GB SDXC/SD Memory recording
28	Video Compression	H.265
29	Ethernet	10Base-T / 100Base-TX, RJ-45 connector
30	Streaming	Simultaneously multi-profile streaming Controllable frame rate and bandwidth Constant and variable bit rate
31	Users	At least 5 users
32	View Material	Vandalproof (IK-10 or equivalent) with Poly Carbonate
33	Power supply	Vendor to specify.
34	Power Consumption	As per POE standard.
35	Mounting	Shall be pole with stand/wall mounted/ceiling mounted with suitable brackets including sun-shroud/canopy
36	Surge/Lightening Protection	Required (Internal/External) in compliance with IEC 62305 requirements
37	Security	Authentication, IP Filter, User access log, Digest Authentication, IEEE802.1x
38	SD Card	Mandatory. The camera shall be able to record during an alarm/ event or in case of network failure. constant overwrite or to stop recording when the
		card is full and notify the administrator that the card is full

		It shall be provided with 64 GB SD Card
39	Backlight Compensation	ON/OFF
40	Color, Brightness,Contrast	Functionality Required
41	Electronic Shutter	1/25 to 1 / 10000 s or better
42	Digital Noise Reduction/ 3D noise reduction	ON/OFF
43	Automatic Lens Control	Automatic Iris
44	Focus	Automatic
45	Cooling Fan /Heater	
46	Upgrade	Through web browser, online, firmware upgrade
47	Controls	Camera shall be remotely controllable and configurable.

5. Specification For NON FLP Pan Tilt Zoom (PTZ) Camera- Outdoor

		NON FLP Pan Tilt Zoom (PTZ) Camera- Outdoor
S.No.	Parameter	
1	Compression	A. The IP Camera shall process and compress video images into digital data files utilizing H.264 or better compression technology.
2	Integration	The camera shall integrate with VMS of the approved makes.
3	Lens	MFZ Lens min range (4.5 to 6.5mm) and maximum range (135 to 140 mm) Motorized Focus 10 X digital Zoom, 30 X optical zoom or better
4	Video Streams	Minimum 3 Compressed streams from the IP Camera; 1 st stream- 2 MP at 25 fps 2 nd stream- 1080p at 15 fps 3 rd stream- vendor to specify
5	Power over Ethernet	Provision shall be there for both PoE as well as without PoE power supply
6	Resolution	2MP Full HD images up to 25 fps
7	Low Light Performance	Camera shall offer Infrared LED illuminators that function to a range of up to 200 meters which can be set to automatic, always on, or always off); Day – 0.3lux, Night – 0.01 lux.IR sensor inbuilt or external shall be acceptable to meet the performance

8	Camera Operating System	The IP camera shall utilize an embedded stable OS that resides on onboard non-volatile flash memory. It shall not reside on internal or external Hard Disk Drives. The camera shall not use a standard PC based OS and should not require constant virus or OS patch management for proper security protection
9	Storage and Network Optimization	The camera shall provide a constant bit rate mode where the bit rate and the quality parameters can be set to perfectly match the storage and network requirements
10	Pickup Device	1/2.8" or better type CCD/CMOS/MOS Sensor
11	Authentication and protection	The camera shall use an Unalterable Image Format to maintain the security and integrity of the digital video files.
12	Communications	Ethernet Port along with programmable capability for static or dynamic (DHCP) IP addressing
13	Protocol Support	The camera shall support the following protocols: TCP/IP, HTTP, UDP, DNS, SMTP, RTP, RTSP, SNMP, IGMP,HTTPS protocols
14	Remote Programming Functions	a. Ability to change the network configuration of the camera, including IP address, gateway and port information, transmission protocols, security protocols and other values pertaining to standard network configuration
		b. Simple video stream viewing and PTZ control via the web client
		c. Ability to adjust compression levels

		d. Ability to adjust the frame rate e. Ability to adjust traditional CCTV camera settings
		including:
		i. White balance- Manual/Automatic
		ii. Contrast
		iii Auto-iris control
		iv. Shutter speed-1/30, 1/100, 1/500, 1/1000, 1/10000, Auto
		v. Exposure time
		f. Network Throttling either through camera or VMS
		g. Password Management h. Camera title
		A. Operating Temperature: 0° to 60 ° C
	Environmental protection (Housing)	B. Humidity: 10 to 90% non-condensing.
15		C. IP66 Compliance
13		Housing: Weather and dust resistance with an aesthetic appeal (Metallic). Camera and housing should be of same make and integrated at factory.
		A. UL
		B. FCC
16	Regulatory and Compliance	C. CE
	Compilarios	Note: equivalent approval will be acceptable
17	Effective Pixels	1920*1080(2MP)
18	Scanning System	Progressive Scan
19	Day & Night	TDN (Auto ICR / Color / B/W)
20	Image setting	Brightness, Contrast, Saturation, Sharpness, Antiflicker, Exposure, White Balance, WDR, BLC, Mirror, Flip, 3D NR
21	AGC	On / Off
22	Signal-to-Noise Ratio	More than 50dB

23	Wide Dynamic Range	(Min 120 DB) or better
24	Television System	PAL
25	ONVIF S & G profile compliance	Required
26	Bit Rate	32kbps - 8Mbps continuously adjustment CBR/VBR
27	On-board storage	supportable up to 64 GB SDXC/SD Memory recording
28	Video Compression	H.265
29	Ethernet	10Base-T / 100Base-TX, RJ-45 connector
30	Streaming	Simultaneously multi-profile streaming Controllable frame rate and bandwidth Constant and variable bit rate
31	Users	At least 5 users
32	View Material	Vandalproof (IK-10 or equivalent) with Poly Carbonate
33	Power supply	Vendor to specify.
34	Power Consumption	As per POE standard.
35	Mounting	Shall be pole with stand/wall mounted/ceiling mounted with suitable brackets
36	Surge/Lightening Protection	Required (Internal/External) in compliance with IEC 62305 requirements
37	Security	Authentication, IP Filter, User access log, Digest Authentication, IEEE802.1x
38	SD Card	Mandatory. The camera shall be able to record during an alarm/ event or in case of network failure. constant overwrite or to stop recording when the
		card is full and notify the administrator that the card is full
		It shall be provided with 64 GB SD Card
39	Backlight Compensation	ON/OFF

40	Color, Brightness,Contrast	Functionality Required
41	Electronic Shutter	1/25 to 1 / 10000 s or better
42	Digital Noise Reduction/ 3D noise reduction	ON/OFF
43	Automatic Lens Control	Automatic Iris
44	Focus	Automatic
45	Cooling Fan /Heater	Required
46	Upgrade	Through web browser, online, firmware upgrade
47	Controls	Camera shall be remotely controllable and configurable.
48	Pan/Til and Zoom and speed	Pan: 360 deg. In both directions. Speed shall be 1 TO 80 Deg/sec. manually and minimum 400 deg/sec. during Preset. Pan accuracy shall be 0.1 deg. Tilting range -180° with auto flip.Tilting speed - 1 to 45 Deg/sec
49	No of presets	Min. 100 nos. Minimum 2 Programmable tours

6. SPECIFICATION FLP ENCLOSURE FOR FIXED CAMERA

Standard Specifications of FLP ENCLOSURE FOR FIXED CAMERAS		
Sr. No	Feature	Specification
1	Application	Flameproof, Explosion proof, IP66 & weatherproof fixed camera enclosure is used in Potentially hazardous areas.
2	Material	LM-6 ALUMINIUM ALLOY CASTING, TOUGHENED WELL GLASS
3	Cable Entries	4 NOS. CABLE GLAND ENTRIES with plug & blind
4	Certifications	CCOE/PESO
5	Standards	IS: 2148 (2004)/IEC: 60079 (2007) or latest versions
6	Hazardous Classification	Zone 1 of Gas II A and Gas II B
7	Make	Pyrotech, Keshkamat, Sudhir Switchgear, Rittal, Camera OEM or equivalent
8	Mount for camera model	If party is supplying NON-FLP camera with FLP Enclosure in substitute to FLP camera, FLP enclosure mounting shall be provided in accordance to Non-FLP camera which will be supplied against the line item as per the tender specs. Tender specs of Non-FLP camera shall be inline with Non-Flp camera tender specification. PESO approval shall specify the model number of the enclosure to be supplied and integrity of the Non FLP camera in FLP enclosure shall be the responsibility of the successful bidder.

7. SPECIFICATION OF CABLE TRAYS

SPECIFICATION FOR PERFORATED CABLE TRAY

Base Material	:	Mild Steel
Size	:	As per BOQ
Perforated	:	Slotted holes
Length	:	3 M
Thickness of Base Material	:	2 mm+-0.18MM(As per IS 1852)
Height without cover	:	50 mm for 150 mm wide trays, 75 mm for 300 wide trays
Cover height	:	10 mm cover to be provided for trays
Zinc Bath Concentration		As per IS 2629 & IS 4759
Hot Dip galvanized	:	Minimum value of Average Mass of Zinc coating(g/m2): 460g/m2
		HDG to be done as per IS: 2629 & IS 4759 or equivalent standard, suitable for indoor/outdoor use having moderate humidity and air pollution.

• SPECIFICATION FOR COVER FOR PERFORATED CABLE TRAY

Base Material	:	Mild Steel
Thickness of Base Material	:	1.2mm +-0.13mm(IS 1852)
Cover height	:	10 mm cover to be provided for trays
Zinc Bath Concentration		As per IS 2629 & IS 4759

Pre-galvanized	:	Minimum value of Average Mass of Zinc coating(g/m2): 340g/m2

 Note: The quantity of Cable tray given in BOQ are tentative & shall be provided as per the design engineering. The ordering shall be done only after approval from HPCL.

Quality Assurance Plan for Perforated cable trays, Perforated cable tray covers shall be as per IS 2629, IS 4759, IS:10748, IS:1852. QAP's and Drawings shall be submitted to HPCL for approval.

8. SPECIFICATION FOR VIDEO MANAGEMENT SOFTWARE

		VIDEO MANAGEMENT SOFTWARE
SR NO		VIDEO OPERATION, CONTROL, MANAGEMENT,
317 110		RECORDING AND PROCESSING SOFTWARE (VOCMRPS)
		The video management system shall be client/server based IP video security solution that shall provide seamless management of digital video, audio and data across an IP network. The video management system shall provide full virtual matrix switching and control capability. Video from sites shall be possible to view from single or numerous workstations simultaneously at any time. Cameras, recorders, and viewing stations may be placed across the terminal in the IP network. It shall be ONVIF Compliant and Open Architect. It shall be able to migrate from a single recorder or enterprise site into a multisite system, at any time.
1	Architecture	VOCMRPS shall be a highly scalable, enterprise level software solution. It shall offer a complete Video Surveillance solution that shall be scalable. API/SDK support to be provided for seamless integration of third party security infrastructure where possible. It should facilitate Firewalls Traversing for the Review application, WebReview, Mobile application and Client Software Development Kit (SDK) connections. The system shall be capable of working on Windows OS and
		Windows Server platforms. The VMS shall support a Workgroup Microsoft Windows Environment as well as an Active Directory Domain
		Environment, Bi-directional Forest Support for Microsoft
		Windows authentication, between a customer AD Forest and VMS AD Forest Environment. It shall support support unified workstation logon, based on Microsoft Windows authentication
		The Software shall supports ONVIF™ and PSIA compliant cameras and devices
		irrespective of profile. The VMS shall be readily complied with the ONVIF Profile S & G as well as future ONVIF standard for Network Video Client
		(NVC). The VMS shall be listed on the ONVIF.org web site list of conformant NVC products.

2	Redundancy	The software shall come preferably as one unit and not as multiple loadable units. If it comes as multiple loaded units requiring multiple servers, they shall be as per NAS specification of this tender and the cost shall be included in the quoted price of each software unit. The Software shall provide user/client licenses for at least 5 users (to be included in software cost itself). The manufacturer supplied management software pack shall have a separate file player to authenticate and play exported files. The VMS shall offer redundancy solutions using the Stratus EverRun or VMware ESXi platforms or similar equivalent and renowned platform. Three possible solutions shall be supported and ready for implementation: The solution shall be redundant, using two separate servers, and achieve a fault tolerant, zero downtime environments. The solution shall provide a disaster recovery option, using a third separate server at a secondary location which would assume primary responsibility in the event of a catastrophic event at the primary location. The solution shall be redundant, using two separate servers, and achieve a high availability, minimal downtime environment. This design should not result in any data loss, however may require manual or automatic start of the application on the secondary server.
3	Recorder Server Capability	It shall support multiple Video Resolutions – CIF, 2 CIF, 4 CIF & HD It shall have feature of recording at 2 MP 1920x1080 @ 25 FPS, 8MP 3840 x 2160 at 25 FPS (for 4K cameras) or better and retrieval of video and Audio. Supports a variety of compression methods MJPEG, H.263, MPEG-4, H.264, H.265 etc The VMS shall support multicast capability to allow client applications to receive live streams from multicast groups through router instead of from camera or Recorder to provide live streaming continuously even when Recorders or the Server become unavailable, and to offload both cameras and recorder The Recorder shall offer a fail-over solution, either to another recorder or group of recorders, dynamically, and without any user intervention
4	Failover Redundancy	The VMS shall support failover recording The failover recorder shall act as a hot standby, ready to take over the functions of a primary Recorder. No action from the user shall be required. The VMS shall support dual recording. VMS shall have provision to the transfer recorded video feed from recording server storage to another specified storage. VMS shall have provision to duplicate the archive video feed to another location.

5	Local control center capability	 The VMS shall have a Control Center graphical user interface (GUI) that allows the user: i. All camera, recorder and work schedules creations and configurations ii. User and access rights and privileges, including rights for multisite configuration The user shall have the ability to add and edit interactive site plans and maps. The VMS shall provide a health check single point of control mechanism to monitor operations and track system performance. The VMS shall provide audit trails of activities performed in the system. Control Center shall have the capability to provide a dashboard, with status information of each recorder that is part of a Master Server configuration. The VMS workstations may be connected to up to 4 monitors where each monitor may be configured to display different live streaming video, playback video, site maps, or alarms The VMS shall auto-discover IP devices with their
6	Downtime	default IP addresses The VMS shall be designed in such a way the Central Server downtimes do not affect the functionality of the recording services. Normal recording and Motion recording shall continue during the Central Server downtimes, only Alarm Recording cannot be activated as the Central Server is responsible for evaluating the alarm conditions.
7	Licenses	The software shall not have seat-licensing, allowing for any number of user seats/installations on the IP video network to be added for future scalability at no management software cost. If seat licensed software is to be quoted then it shall have 1.2* total no. of cameras/devices such recording licenses per site. Recording license not applicable.
8	Web Review and Mobile Client	Web/Mobile client: i) The VMS shall provide an ultra-thin, secured Web Review client application, designed for viewing by corporate personnel or other investigators ii)The VMS shall provide a Mobile Client Application via Wi-Fi, 3G or 4G networks iii. The Mobile Client shall have secure login and authentication (RSA encryption) iv The Mobile Client shall utilize live transcoding to low bandwidth H.265 streaming in 4CIF resolution and lower Mobile client: VMS shall support mobile client in android and iOS VMS shall support Mozzila,Edge,Chrome browser based web client

		VMS shall support Maps, Alarms activation support in Mobile client
9	User rights	Each user shall strictly operate as per the access rights assigned by the administrator. The restrictions can apply to the cameras view, recorded views, access to various components of systems and controls.
10	Protocol	Wide compression technology support The Software shall supports a variety of compression methods MJPEG, H.265, MPEG-4 Part 2, Simple Profile and Advanced Simple Profile, H.264/MPEG-4 AVC, and MxPEG.
11	Dual streaming	Hardware use is optimized with two independent, configurable video streams, one for live viewing and one for recording.: Local Level- Recording and viewing at full resolution; and Central level-Viewing at full resolution and recording at lower resolution. No. of streams at central server as per given philosophy for multi-site capabilities.
12	Privacy masking	Enables administrators to define privacy masks for individual cameras, to hide areas in the camera view that must not be visible or recorded in order to comply with local legislation
13	Functionalities	Automatic search and registration of components of proposed system on the network. They can be Cameras, Monitors, Alarm panels, NVRs. The system shall allow for live view, playback and system configuration of the IP video system. The system shall allow for creation of multiple users and user groups and assign tasks to each. Drag & Drop functions for most functions on the system and also for set up of connection between cameras and monitors Several simultaneous live picture connections of camera in network. It shall be capable of showing video pane layouts including 2x2, 3x3, 4x4, various Hot Spots (1+5, 1+7, 1+9, 1+12, 1+16) and custom layouts. It shall be possible to listen to audio from individual encoder/cameras or decoders/Receivers. Audio shall be simultaneously transmitted from the Operator to allow a one way/ two-way conversation. It shall be possible to establish bi-directional audio connection on alarm. The user shall also be able to disable listen when speaking to prevent feedback through the microphone. System setup for predefined surveillance tasks to be invoked at pre- defined times in the day. Programming of automatic recording events on NVR, maybe based on events such as alarms and video analysis Remote maintenance of IP Video components.

		It shall be possible to show text on screen display (OSD) when video is displayed on a Receiver. The OSD shall detail the camera name, number, date and time. It shall support remote viewing of cameras on Internet / Intranet It shall provide digital zooming facility. The video management system shall support the use of secure Hypertext Transfer Protocol Secure (HTTPS) using Secure Sockets Layer (SSL) to establish a secure connection between supported hardware devices and the software solution. The VOCMRPS shall allow for video to be streamed on a video mosaic wall. The price of the same shall be included in software cost.
		The VOCMRPS shall allow the following
		Live display of cameras Live display of camera sequences & salvos. Control of PTZ cameras & MFZ Fixed cameras Playback of archived Video at speeds of x1/4 – x8 Retrieval of
	Investigation	archived Video using normal playback, thumbnails (event or time based)
14	Management system	Instant Replay of Live Video Use of site maps Configuration of system settings Execution of Salvos, Guard Tour & sequences using tasks or manually
		The software solution shall include an email and SMS/mobile app notifications feature that can inform users about system errors such as archiving failures or camera failures. SMS /Email Server will be of HPCL ii. Receiving signals from alarm inputs and generating alarm messages
15	Resolution	For each camera set up bit rate, frame rate, and resolution shall be set independent of other cameras in the system. Altering the setting of one shall not affect the settings of other cameras.
		PTZ Operations VOCMRPS shall be able to operate with PTZ protocols of the offered cameras. Named presets (up to 64) and custom commands (up to 64) shall
16	PTZ Operations	be supported per camera, invoked from VOCMRPS. User priority between 1 and 5 shall be allocated for PTZ enabled
		transmitters. VOCMRPS shall have the ability to slue PTZ cameras to alarm generated areas.
17	Recording technology	Continuous recording, motion based recording, event based recording and combination of event and motion based recording.

		The VMS shall provide up to 10 different and independent programmable recording schedules. The schedules may be programmed to provide different record frames rates for day, night, and weekend periods as well as special days. Advanced task schedules may also be programmed that could specify allowed logon times for user groups, when events may trigger alarms, and when data backups should occur The VMS shall export video and audio data optionally in ASF/ AVI format to a CD/DVD drive, a network drive, or a USR drive. The
18	Export Formats	format to a CD/DVD drive, a network drive, or a USB drive. The exported data in ASF format may be played back using standard software such as Windows Media Player.
19	System details	The software shall allow for using .BMP format area maps. The software system shall be capable of handling camera and alarm icons on area maps. The area map shall be configurable to pop up / highlighted with colour upon the receipt of an alarm received from a camera/ VIDEO Encoder on the map. This can be on the same or other monitors on the PC. The Software system shall allow direct connection of control keyboard to the PC workstation running the VOCMRPS for virtual matrix operations. The software shall be capable of monitoring the status of camera in the network and shall indicate when a device goes offline by suitable red cross across the camera. The system shall be able to carry out a motion search on recorded video and highlight motion in the playback bar and also as motion event based thumbnails to navigate straight to that event in recording. The system shall support automatic failover for recording servers. This functionality must be accomplished by a failover server that shall work as a standby unit, which takes over in the event that one of a group of designated recording servers fails. Recordings shall be synchronized back to the original recording server once it is back online. The system shall support multiple failover servers for a group of recording servers. The system shall provide monitoring of all failover servers from the graphical alarm management module. The system shall provide seamless access to recordings on the failover Server for all clients through the same client views once the services are fully started. The VMS shall support end to end from Camera to End client. The system shall support multicasting of video feeds to client workstations in order to conserve network resources. The system shall automatically switch to unicast, if the client fails to connect to the multicast stream The system shall be able to restore the data stored on the camera's internal storage to media database once the communication from the cameras is restored.

20	Additional functionalities	 The alarm and map window shall have docking facility on the main screen. The alarm support shall provide a real-time overview of alarm status, or technical problems, while allowing for immediate visual verification and troubleshooting. The alarm support shall allow for continuous monitoring of the operational status and event-triggered alarms from servers, cameras and other devices. The VOCMRPS shall have the following facilities. Retrieve data with 'alarm on' with key on live video screen Search of recorded images based on motion, congestions, counter flow, time, date, alarm etc. Shall support 32 Video streams concurrently on a work station Shall allow 3 levels of user and Alarm prioritization Shall allow 64 cameras to be replayed simultaneously from one NVR Auto-protecting of video recording on post and pre 'alarm' images. The hashing function and a bit key shall describe a digital signature of the video images and be watermarked into files of exported images. Shall have facilities for play, forward, rewind, pause along with fast forward and rewind for reviewing the recorded videos. Shall be capable of 4 X 4(max) viewing panes at 16 frames. Video Search Video smart search on the basis of date, time, event, camera, locations and alarm.
21	Dashboard	VMS shall able to create the custom dashboard which will graphically display following parameters Entity count: Total Camera count, Total user count, Total alarm count, Total user groups created, Total number schedule created in system; This information shall be auto refresh on specified time Video tile for viewing cameras Health events: Transmission loss, Camera recording problem, etc Total active user clients logins like Desktop client login, Mobile client login
22	Health check up	The VMS shall provide a Health Check application for live monitoring and detailed system performance metrics on system components, including all server- side software applications, including video recorder software. 2. The VMS shall provide a Health Check application for live monitoring and detailed system performance metrics on edge devices, and IP cameras.

		3. The VMS shall be capable of exporting performance analysis
		results.
		4. The VMS shall offer a user interface designed to enable the
		management of the following:
		i. System logs
		ii. System alerts
		iii. Audit trail for user as well as administration for all events
		conducted in the system
		iv. Performance
		v. Recorder sanity, through a dashboard Redirection to various
		outputs, such as Windows event logs and e-mail
		5. The VMS shall be capable of capturing real-time performance
		analysis.
		6. Multiple user profiles with privileges are required.
		VMS shall have health dashboard which shall able to graphically
		display following information Hardware device online
		No of clients online and active
		☐ Security score: Which will recommend the user about change the default login password and enforce strong
		password policy, update camera firmware.
		VMS shall have Database info log like Event Count, Source
		Count, Video file count, Size on disk . VMS shall have provision
		to set notification for Diskspace and Database usage goes set
		value.
		VMS shall support the backup of database from VMS GUI
		console
		VMS shall support end to end video encryption.
		VMS should support Dual sign in to log in to the system
		administrator and client - Log in shall be permitted when two
		authorized persons login. any user can login first and second
		user will authenticate. There shall be no restriction which user
		login first or second.
		VMS shall support auto lock of client after specified time
		with inactivity.
23	Cyber Security	VMS shall support able to give alarm if specified user is
23	Cyber Security	login in, log off. VMS shall support able to give alarm if specified user is
		login failed.
		VMS shall support following password management policies
		Admin shall create the user and set the
		password shall have provision to change the password on next
		login of user
		Admin shall have provision to set the user
		password rule like enforce minimum characters,upercase,lower
		case,numrical character, special character.
_		Page 46

		☐ Admn shall set the password which can expire
		with specified time limit
		☐ There shall be possible to lock user based on
		schedule decided by administrator
		i. Adding the date and time to the image
		ii. Adding text annotations to the image
		iii. Copying the image to the clipboard so that it can be pasted
		into other applications
		iv. Printing the image
24	Image tool kit	v. Saving the image to disk in various standard file formats
		vi. Adjusting the brightness and/or contrast of the image
		vii. Converting a color image to grayscale
		viii. Applying filters to the image to smooth or sharpen
		ix. Applying edge detection to highlight borders and surfaces of
		objects within the image
		The VMS shall allow users to search and display faces that were
		captured by specifics cameras during a specific time interval,
		including the following functionalities:
		i. Select one or multiple cameras
		ii. Select the time interval
		iii. Display retrieved faces in a cropped thumbnail view.
		iv. Display controllable image size to allow more or less
		faces to
0.5	Entry/Exit	be seen on the screen.
25	monitors	v. Double-click a face to retrieve and play recorded video
		vi. Add to reference list
		vii. Export faces and video
		viii. Provision to Link faces and exported video to investigation
		folder
		for Face Recongination feature
		ix. Provison to Display the truck no. and export to separate file
		for
		NPR
		1. The VMS shall support the mapping functionality, where
		digital maps are used to represent the physical location of
26		cameras and other devices throughout the surveillance system.
		2. Maps shall have the ability to contain hyperlinks used to
	Maps	create a hierarchy of interlinked maps.
	apo	3. The mapping functionality shall be able to import maps
		from any graphical software supporting BMP, JPEG, or GIF
		image formats.
		4. Once a map is integrated, it can be viewed in the
		Review application.

		HPCL will provide the location layout in auto Cadd & PDF. System has to show the Camera Position on the Layout in VMS in which both Communication Condition & alarm condition require to show. Also Complete location layout has to divide in no of zones. These Zones will be treated as the tour of PTZ cameras & user can select the Tour of cameras by Selection cameras o24n the layout.
		System architecture which will show the online status of servers & cameras, in which both Communication Condition & alarm condition require to show. Also Complete location layout has to divide in no of zones. These Zones will be treated as the tour of PTZ cameras & user can select the Tour of cameras by Selection cameras on the layout. System architecture which will show the online status of servers
		& cameras .
		The video management system shall be capable of managing multiple recording manager systems.
		It shall be possible to assign encoders and IP cameras to recording manager The recording parameters shall be configured in the recording tables of the VMS configuration program. These settings shall be replicated into the devices from the Central Server.
		The recording manager shall manage encoders and IP-Cameras, and the Network attached storage systems. It shall offer system
		wide recording monitoring and management of Network
		Attached storage, video servers and cameras
27	Recording Manager System Software	The recording manager shall support the encoders and cameras to directly stream the data to the Network attached storage. The transfer rate of the data from the encoder or IP-Camera is limited by network speed and the Network Attached Storage data throughput rate.
21		The Recording Manager shall be able to restore a lost recording database from data on the Network attached storages/ VMS server.
		The Recording Manager shall provide flexible retrieval of recordings. It shall be able to determine on which network attached disk array data from each camera or encoder has been stored
		It shall be possible to secure the access to the Recording
		Manager software with a password. This shall be done in the
		Configuration Client
		The video management system shall allow configuring if playback of recordings is streamed through the Recording Manager or is streamed directly from the Network attached storage.
		The video management system shall support to retrieve the playback information, i.e. from which iSCSI storages to retrieve the video, audio and meta-data, either from the Video

		Recording Manager or directly from the IP encoder or camera.
		Playback information directly from the IP encoder or camera is limited in time and should be used while the Recording Manager is not available to increase the reliability of the video management system
28	Multisite deployments	The VMS shall support both single and multi-site deployments. For multisite deployments, a multisite directory shall store information for all sites. A copy of the multisite directory shall also reside on each site in the multisite configuration, avoiding any single point of failure. In the event of a multisite directory disconnection, each user shall still be able to execute multisite functionality.
		The VMS multisite system shall have the ability to simultaneously view multiple cameras (live or recorded), alarms, bookmarks, and investigations, from any site, with a single sign-on for authorized users.
		Sites can cross connect as required at any time by a simple configuration with a passkey. VMS should have inbuilt capability to detect and alert any failure of device due to break in network / device becomes faulty, however bidder may provide separate NMS
		The VMS shall have a flexible, open architecture that allows alarm event and response creation, whether for a single site or multisite, through an event and response manager that support alarm schedules and custom scripts
29	Central server (Provison for Interface)	If central server requirement is envisaged in project the VMS version supplied shall maintain cohesive operations of all of the components in the video management system, including the VMS database from at least 100 plant locations from the Central location or the Head Office.
		The Central VMS version supplied shall be of the same make and version as the VMS deployed at the plant locations. The Central Video Management should have provision for expansion support up to 100 locations and minimum 3000 cameras and/or encoder channels for live viewing and central recording
		A Central Software in the version supplied shall support selected recording for up to 3 days at Head Office from at least 100 locations. The compression and resolution along with the frame rate shall be user selectable.
		The Central VMS shall have provision to expand up to 100 client application workstations simultaneously. The Central VMS shall support minimum 300 live video tiles simultaneously from any locations. Multiple Client stations may be used to support an unlimited number of tiles.
		The access of the Database shall be strictly controlled by the super administrator who will have control through VMS SDK only.

		VMS shall support Bandwidth Control to for Live view and Playback stream to the clients. Its shall be possible to restrict no of clients allowed to login in system and also overall bandwidth allow for live and playback VMS shall support VMS Federation of the system from other site. Master site shall supports following features after federation Live view and Playback of all the cameras form child site Receive the alarms from child site and create event to action on form child alarms Remote configuration window child site console on same GUI from master site Bookmark done at master site client shall be
		visible to local child site clients Its shall be possible to record the Child camera at Master site Using we client or mobile client all child camera shall be viewed
30	Integration	Using we client or mobile client all child camera shall be viewed Existing CCTV cameras needs to be integrated with proposed CCTV system where ever mentioned in Tender Specification for which required hardware like encoder for Analogue cameras/ Encoder based IP cameras which are not ONVIF complied etc shall be in the scope of the successful bidders. For existing cameras recording shall be at maximum available resolution of the camera @ min 15 fps. Exceptions in this regard can be accepted only wrt true IP cameras on proprietary protocol (not ONVIF compliant) and with no OEM support available for API/ SDK / integration with the new software etc. The offered VMS software should be vendor agnostic and capable of integration with all the make and models of the cameras as listed in the Vendor list. Similarly VMS software should also be capable with tightly integration with ONVIF compliant VA. Bidder is required to provide specific guarantee in regard to the above. The Software Development Kit (SDK)/ API / Communication Interface Protocol Kit of the offered VMS and Analytic software should be shared with HPCL and shall be such that it can be interfaced with third party application like such as PIDS, Access Control System, Fire management system, Al based VA, Terminal Automation system etc can be done without any time and cost implication to HPCL during warranty & CAMC Support.

9. SPECIFICATION FOR FLP Junction box

SR NO	FEATURES	PARAMETERS
1 2	Body & Cover Gasket	Cast Al. Alloy (LM-6) minimum 5 mm thick. Neoprene rubber
3	Terminals	Clip on type, block locked at both ends suitable for up to 2.5 mm 2 conductor.
4	Tag nameplate	to be provided
5	Paint	Anti corrosive epoxy paint, shade light gray
6	Protection class	Suitable for area classified as zone-I, IIA & IIB, T6 as per IS2148 IP – 65 or better as per IS – 2147
7	Other	Explosion proof junction boxes shall have detachable cover, which is fixed, to the box by means of cadmium plated hexagonal head screws. Terminal shall be spring loaded, vibration proof, clip-on type, mounted on nickel plated steel rails complete with end cover and clamps for each row.
		Sizing shall be done with due consideration for accessibility and maintenance in accordance with the following guidelines
		50 to 60 mm between terminals and sides of box parallel to terminals strip for up to 50 terminals and additional 25 mm for each additional 25 terminals.
		100 to 120 mm between terminals for up to 50 terminals and additional 25 mm for each additional 25 terminals.
		All junction boxes shall be provided with external earthing lugs
		All junction boxes shall be provided with 20% spare cable entries and terminals. Each junction boxes shall have a minimum of 10% or 2 Nos. whichever is higher, spare entries. All spare entries shall be with EXD plugs.

	All cable glands and plugs shall be of nickel-plated brass material. All the cable glands shall be preferably NPT with PVC hoods unless otherwise specified. Double compression type cable glands shall be used for armored cable.
	JB supplied should have proper arrangement for fixing all accessories inside it properly with clamps.

10.SPECIFICATION FOR INDUSTRIAL GRADE (8 PORT) LAYER 2 MANAGED NETWORK SWITCH

SI. No.	PARAMETERS	DESCRIPTION
1.	Туре	Industrial grade layer 2 POE Ethernet switch
2.	Operation	Store & forward, wire speed switching, non-blocking
3.	Modes	Full or half duplex operation with flow control supported on all ports
4.	MAC address	Min 4000 for 8 Port Switch
5.	Memory bandwidth	Min 5.6 Gbps for 8 Port switch
6.	RJ45 ports	
a.	Ports	For 8 Port Switch: Minimum 8 nos. 10/100 BASE-TX POE+ Ethernet, fully IEEE 802.3 compliant with 240 Watts POE budget.
		2 SFP ports will support any combination of 10/100T, 100X, 100FX, 100BX(Bi-directional), 1000X, 1000SX, 1000LX, 1000ZX or 1000ZX CWDM SFPs
b.	Speed & direction	Configurable or 10/100 /1000 auto detecting for speed and duplex. (full o
C.	MDI/MDIX	Auto-MDI/MDIX crossover.
d.	Polarity	Auto-polarity for crossed TxD & RxD pairs
7.	Fibre optic ports	
a.	Ports	2 nos. 1000 Mbps fibre optic ports for distances up to
		10km. Single mode links
b.	Single mode	Upto 10km typical
8.	Networking features	

a.	Device support	All IEEE 802.3 compliant devices
b.	Protocols & features	All IEEE 803.2
		Management Features SNMPv1, v2c and v3, IEEE 802.1AB Link Layer Discovery Protocol (LLDP), Web GUI, sFlow a method for monitoring traffic in switched and Routed networks
		Multicast Support IGMP query solicitation, IGMP snooping v1, v2 and v3,
		, MLD v1 & v2
		VLAN GVRP, VLAN creation based on protocol, Port and Subnet based,
		IEEE 802.1Q Virtual LAN (VLAN) bridges, IEEE 802.3ac VLAN tagging.
		Quality of service IEEE 802.1p, DSCP Prioritization, Strict priority,
		weighted round robin or mixed scheduling
		IPv6 Features Path MTU discovery for IPv6, IPv6 specification,
		Transmission of IPv6 packets over Ethernet networks, Default address
		selection for IPv6, IPv6 addressing architecture
C.	Resiliency protocol support	Rapid Ring protection / Resiliency technology providing the convergence
		of Sub 50ms, Loop Detection and Loop protection, RSTP & MSTP, Shall
		support high-speed ring recovery fibre access and uplink ports and should
		seamlessly integrate with the core /
	Otanadanda	Aggregation chassis proposed
d.	Standards compliance	IEEE802.3
		IEEE 802.3u IEEE 802.3x
		IEEE 802.3x
9.	Power input	Dual redundant power input
10.	Input voltage	VTS
10.	range	
11.	Power	VTS
	consumption	

12.	Surge & spike protection	Should support EN 61000-4-5 std for surge.
13.	Diagnostics	Self Test and alarm output
14.	Operating temperature	0 °C to 75 °C
15.	Humidity	Up to 95%
16.	Electrical safety	UL/IEC/EN 60950-1
17.	EMC	EN550222010, EN550242010
		EN61000-6-4
		EN61000-4-2 (ESD)
		EN61000-4-3 (RS)
		EN61000-4-4 (EFT)
		EN61000-4-5 Class 3 for DC power, Class 2 for I/O
18.	MTBF	Better than 2,00,000 hours
19.	Ingress protection	IP30 protection minimum
20.	Mounting	DIN rail or direct panel
21	OEM Compliances:	 The proposed model should not be End of Sale and End of Life and the latest datasheet of the proposed model should be available on the OEM's Global website The OEM should have an Indian Registered Subsidiary and the Indian Subsidiary certificate needs to submitted India TAC support contact details to be submitted by OEM India RMA support and process details to be submitted by OEM For ease of integration all active components (switches, SFP's) be of
		same OEM and the Test reports of the products should be ted by the OEM

11. SPECIFICATION FOR 12 PORT NETWORK SWITCH

Star	Standard Specification for 12 Port Network Switches - 1 set means 2 number of switches for redundancy				
S.NO.	SPECIFICATION	REQUIRED PARAMETERS			
1	Port Density	12 x100/1000 BASE-X SFP ports Gigabit SFP ports will support any combination of 10/100/1000 BASE-T, 100BASE-X or 1000BASE-X SFPs, 100BASE-FX, 100BASE-BX, 1000BASE -SX, 1000BASE-LX, 1000BASE-ZX or 1000BASE-ZX CWDM SFPs Forwarding Rate 71.4Mbps			
2	Performance	Switching Fabric 100 Gbps Supports 9 KB Jumbo frame size UP to 2K IPv4 routes, UP to 16K MAC addresses, UP to 1K layer 2 multicast groups, 4K VLAN ID, 256 MB DDR SDRAM, Separate packet buffer memory, 32MB Flash Memory, IPv6 routing option			
3	Resiliency	2001 Rapid, Spanning Tree protocol (NSTP), RFC 3768 virtual Router Redundancy Pynamic Link Failover, 250 msec ring convergence incase the link failure, optimized for voice & video traffic. Loop Protection- Loop Detection Loop Protection-Thrash Limiting STP Root Guard, IEEE 802.1D Spanning Tree, Protocol (STP)-MAC Bridges, IEEE 802.1s Multiple Spanning, Tree Protocol (MSTP), IEEE 802.1t -2001 Rapid, spanning Tree protocol (RSTP), RFC 3768 virtual Router Redundancy Protocol (VRRP)			
4	VLAN support				

		Support 1 K VLANs, IEEE 802.1ad VLAN double tagging (Q-in-Q) IEEE 802.1QVirtual LANs IEEE 802.1v VLAN classification by protocol & port. IEEE 802.3ac VLAN tagging	
	Security	Private VLANs, providing security and port isolation of multiple customers using the same VLAN. Dynamic VLAN assignment NAC 802.1 x support ACLs Access Control Lists BPDU Protection Guest VLAN support (IEEE 802.1x) IEEE 802.1x port Based Network	
5		Access Control IEEE8021x Authentication protocols (TLS, TTLS, PEAP & MD5) IEEE 802.1x Multi Supplicant authentication MAC-based authentication port Security SSH Remote Login SSLv3 Web-based Authentication RFC 2246 TLS Protocol V1.0 RFC 2865 RADIUS, RFC2866 RADIUS Accounting RFC 3546 Transport Layer Security (TLS) Extensions RFC 3748 PPP Extensible Authentication Protocol (EAP)	
6	Quality of Service	TCP-IP bandwith limiting performance and bandwith resolution down to 1Kbps IEEE 802.1pPriority Tagging	
	IPv6 Features	IPv4 and IPv6 Dual Stack IPv6 Management via Ping, Trace Route, Telnet and SSH Static Unicast Routes for IPv6 RFC	
		1886 DNS Extensions to support IPv6 RFC 1887	
_		Architecture for IPv6 Unicast Address Allocation RFC 2461 Neighbour Discovery for IPv6 RFC 2463 ICCMPv6 RFC 2464	
7		Transmission of IPv6 packets over Ethernet Networks RFC	
		2711 IPv6 Router Alert Option RFC 3056 Connection of IPv6	
		Domains via IPv4 Clouds RFC 2513 IPv6 Addressing	
		Architecture RFC 4443 Internet Control Message protocol (ICMPv6)	
		Broadcast Forwarding ECMP Equal Cost Multi Path routing RFC 768 User Datagram Protocol (UDP) RFC 791 Internet	
8	General Routing	Protocol (IP) RFC 792 Internet Protocol Message Protocol (ICMP) RFC	

		793 Transmission control Protocol (TCP) Route Maps Route Redistribution (OSPF, RIP) RFC 1058 Routing Information Protocol (RIP) RFC 2080 RIPng for IPv6 RFC 2081 RIPng Protocol Applicability Statement RFC 2082 RIP-2 MD5 Authentication RFC 2453 RIPv2 Bootstrap Router for PIM-SM IGMP Proxy IGMP Snooping MLD Snooping (v1 and v2) RFC 1112 Host extensions for IP multicasting RFC
9	Multicast Support	2236 Internet Group management Protocol v2 (IGMPv2) RFC 2362 PIM-SM RFC 2715 Interoperability Rules for Multicast Routing Protocols RFC 3376 IGMPv3 RFC 3973 PIM-DM RFC 14541 IGMP & MLD snooping switches
10 Management		10/100/1000 console management port, port mirroring SSH and SNMPv3 for secure management RADIUS Authentication RMON (4 groups) SNMP Traps RFC 1157 Simple Network Management Protocol (SNMP) RFC 1212 Concise MIB definitions RFC 2574 User-based Security Model (USM) for SNMPv3 RFC 2575 View-based Access Control Model (VACM) for SNMP RFC 2741 Agent Extensibility (Agent X) Protocol Diagnostic Tools 10.1.1 BIST (Built-in Self Test) 10.1.2 Ping Polling User Interface & administrator Features should support multiple firmware on switch flash & so that backup firmware can be used incase main firmware fails Graphical User Interface (GUI) /
		Web GUI Industry- standard CLI with built-in Help
11	Electrical Approvals and Compliances	EMC EN55022 class A, FCC class A, VCCI class A Immunity EN55024, EN61000-3-levels 2 (Harmonics), and 3 (Flicker)
12	Safety Standards	UL60950-1 CAN/CSA-C22.2 No. 60950-1-03, EN60950-1, EN60825-1, AS/NZS 60950-1
13	Certification	UL / TUV or Equivalent ;
14	RoHS compliant	Required
		- 1

15	Power	AC Voltage 100 to 240V		
15	Characteristics	(+/- 10% auto ranging) Frequency 47 to 63Hz		
16	Power Consumption	VTS		
17	Environmental Specifications	0 °C to 45 °C , RH upto 95%		
18	Mounting	Up to 95%		
	OEM Compliances:	The proposed model should not be End of Sale and		
		End of Life and the latest datasheet of the proposed model should be available on the OEM's Global website		
		The OEM should have an Indian		
10		Registered Subsidiary and the Indian Subsidiary certificate needs to submitted		
19		India TAC support contact details to be submitted by		
		OEM		
		India RMA support and process details to		
		be submitted by OEM		
		For ease of integration all active components (switches, SFP's) be of same OEM and the Test reports of the products should be ted by the OEM		

12.SPECIFICATION FOR LED display screen

S.NO	FEATURES	High Definition LED TV
1	Monitor	Minimum 55"/75" , High Definition LED Monitor
2	Display Resolution	1920*1080 pixels
3	Backlight Module	Dynamic Edge LED
4	Video Signal	480/60i, 480/60p,1080/60i, 1080/50p (HDMI)
5	MPEG noise reduction	Yes
6	Viewing Angle (H/V)	ВТА
7	Response Time	8 ms (gray to gray, avg.)
8	Computer Input	HDMI/Audio in, USB 2.0, Ethernet connection, HD15 PC input
9	Video Colour System	NTSC (3.58 MHz, 4.43 MHz), PAL, PAL60, SECAM
10	Power Supply	100V to 240 V AC, 50 Hz +/- 5%
11	Power Consumption	ВТА
12	Remote Control (Required)	Infra Red Remote with Control Function
13	Mounting(Mandatory)	Bidder require to provide Movable /Adjustable wall Bracket to mount TV on wall at Security, Control Room & Incharge Room. The Bracket require to be movable so that TV view can be adjusted

13. SPECIFICATION FOR Octagonal Hot Dip Galvanized Poles

S. No	Description	Parameter	
1	Octagonal Pole		
а	Over all height of Pole (mtrs)	8 Mtrs	
b	Sizes	Bottom 150 mm x Top 80 mm x 8000mm Bottom 200 mm x Top 100 mm x 10000mm Bottom 240 mm x Top 110 mm x 12000mm	
С	Size of Base Plate & Thickness	240 x 240 mm X 16 mm - 8 m Pole 310 x 310 mm x 20 mm - 10 m Pole 350 x 350 mm x 25 mm - 12 Pole	
d	Foundation Bolts	M24 X 750mm long with three Nut and 2 Plain washer – 4 Sets	
2	Metal Protection Treatment of Pole Sections.	Hot Dip Galvanized as per BSEN ISO 1461	
3	Thickness of Galvanization (mm)	Average 70 Microns as per IS 2629	
4	Welding	As per AWS D1.1,(Equivalent to BS 5135)-Single longitudinal welding	

5	Size of Door opening the Base Section	100x400mm
6	Type of Door construction and locking arrangement	Close fitting door with suitable reinforcement to avoid buckling
7	Material of construction of shaft	As per BSEN 10025/For Shaft, IS 2062 For Base Plate
8	Cross Section of Pole	Octagonal
9	Dynamic Loading	
а	Max. design with speed	50m/sec as per IS 875 (Part-III)
b	Gust Speed time considered	3 Sec
С	Height above ground level at which wind velocity is measured	8 mtrs
d	Factor of safety for wind load	1.25
Е	Factor of safety for other loads	1.15
f	Applicable Standard for pole design	BSEN-40-3-3
10	Foundation Details	
а	Type of Foundation	M-24 (Nut Bolt of EN 8 Grade) cement Concrete Foundation for 8, 10, 12 mtr Galvanised Octagonal Pole. Foundation Size 600 x 600 x 1500 mm including Excavation in Hard Morum or Tar / Metal Road as per requirement complete with the steel reinforcement
b	Design safety factor	1.25
С	Considered wind speed (km/hr)	50mm/sec as per IS875 (Part-III)

d	Depth of Foundation (mm)	1500 mm
е	Average Soil Bearing Capacity	10 T/Sqm (To be verified from site)
11	Camera Fitting	Aluminum Deep Drawn or Die cast IP 66 or better
12	Brackets	Single Arm – 1500 mm Lg.
13	Ladder for maintenance	1 no Safety ladder with appropriate height to be provided for each location for camera maintenance

14.SPECIFICATION FOR 12 CORE OPTICAL FIBER

SL NO	DESCRIPTION	SPECIFICATION
1	Type of Fiber	Single Mode with composite coating on each fiber
2	Specification	IEC 60793-2-50, ITU G.652
3	Construction	Multi-Fiber loose tube jelly filled
4	No. of fibers	12
5	No. of loose tube	1
5	Laying	Direct Burial (Underground)/ Outdoor
6	Strength member	2 Nos. of steel wires
7	Armour	G.I./ Electrolytic chrome coated steel
8	Overall sheath	Tough weather resistant made High Density Polyethylene compound (HDPE) with anti- termite and anti-rodent properties.
9	Attenuation at 1310 nm	0.38 dB/Km
10	Attenuation at 1550 nm	0.25 dB/Km
11	Fiber cutoff wavelength	> 1150 < = 1320 nm
12	Polarization Mode Dispersal (PMD)	≤0.5 /√km
13	Microbending loss at 1550 nm	≤0.05
14	Proof stress level	≥ 0.7 Gpa

15.SPECIFICATION FOR CABLES

FRLS Power Cable

SL NO	DESCRIPTION			SPECIFIC	ATION
1	Make	As per Re	As per Recommended Vendor List		
2	Quantity	As require	ed		
3	Type of Cable	3 core Co	pper cable		
4	Voltage Class	1100 VA	C grade		
5	Size of Cable	4 Sq.mm.			
6	Applicable standard	IS 1554 F	Part-1/1988		
			CONDU	CTOR	
7	Material		Multi-stranded Electrolytic annealed bare copper as per conductor class 2 of IS 8130		
8	No of Strand	7			
9	Size (sq mm)	2.5	4	6	10
10	Diameter of Strand (mm)	0.67	0.85	1.02	1.35
			INSULA	TION	
11	Material	PVC type	C as per IS 5	831/1984	
12	Туре	Extruded			
13	Thickness	As per Ta	As per Table 2 of IS 1554 (Part-1)		
14	Color Scheme	As per IS	As per IS 1554 (Part-1)		
		3 core R	ed, Yellow & I	Blue	
		4 core R	ed, Yellow, Bl	ue & Black	
	Inner Sheath				
15	Material PVC compound type ST2 as per IS 5831/1984		as per IS 5831/1984		

16	Туре	Extruded		
17	Thickness	As per Table 4 of IS 1554 (Part-1)		
	ARMOUR			
18	Material	Galvanised round steel wires over inner sheath where the calculated diameter below armouring < 13 mm OR Galvanised steel strips over inner sheath where the calculated diameter below armouring > 13 mm as per IS 1554 Part 1		
19	Size	As per Table 5 of IS 1554 (Part-1)		
20	Armour Resistance	As per Table 6 of IS 1554 (Part-1)		
21	Galvanisation	Shall be as per IS 3975 and IS 10810 (Part 41)		
		OUTER SHEATH		
22	Material	FRLS PVC compound type ST2 as per IS 5831/1984		
23	Туре	Extruded		
24	Thickness	As per Table 7 of IS 1554 (Part-1)		
25	Marking on outer sheath	By embossing/printing Make, Year of Manufacture, Voltage grade and Size of cable		
26	Sequential length marking	At every interval of 1 meter		
27	Colour	Black		
28	Rodent and Termite attack protection	Yes		
29	Oxygen Index	Min 29 at 27 Deg C to ASTM D 2863		
30	Temperature Index	Min 250 Deg C to ASTM D 2863		
31	HCL Emission	Max 20% by weight to IEC 754-1		
32	Smoke Density	Max Smoke Density Rating shall be 60%, tested as per ASTM D 2843.		

	ELECTRICAL PARAMENTERS		
33	Maximum resistance of the conductor of complete cable at 20 deg.C	As per Table 2 of IS 8130	
34	Minimum volume resistivity (for insulation)	1 x 10 e13 @ 27 deg.C 1 x 10 e10 @ 85 deg.C As per IS 5831 - 1984	
35	High voltage test	3 KV rms for 5 min between core to core 3 KV rms for 5 min between core to armour	

Note

- 1. Cable weight and Conductor weight per meter shall be provided.
- 2. Rip cord to be provided below the inner sheath.

16. CAT 6 ethernet cables:

S.NO	PEATURE REQUIRED PARAMETERS		
3.NO	FEATORE	REQUIRED PARAMETERS	
1	Type of Cable	Armoured/ Non armoured as per SOQ Line item	
		CAT 6 cable	
		Pair-shielded 100 Ohm installation cable with overall braided screen, suitable for transmission frequencies of up to 650 MHz for non armoured & 250MHz for armoured cableszsj, 4 x 2 x 0.56 mm.	
2	Conductor	4 pair STP cable 23 AWG Annealed bare stranded copper	
3	Primary insulation	Polyethylene insulation	
4	Outer Sheath	Low-smoke in acc. Latest ISO / IEC /EN / IEEE Standard	
5	Armour over inner sheath	Required	

6	Shielding	Screened to ensure protection against EMI and for cross talk compliance.
7	Application standard	ISO/IEC 11801 2nd Ed., EN 50173-1 May 2007 (DIN EN 50173-1), DIN 44332-5, IEC 61156-5 2nd Ed., EN 50288 x-1, 10GBase T in acc. with IEEE 802.3, tested and certified by independent laboratory. TIA/EIA 568.B
8	Application	Indoor / outdoor installation Maximum permissible – 70 mtrs for one point to another.

SPECIFICATION FOR CABLE LAYING

Cables shall be laid both aboveground on the Cable as well as underground. The Cable shall be laid aboveground in the Gantry & on the Tanks. Apart from the Gantry & Tanks, Cabling shall be laid aboveground to the extent possible or underground cable trench. All aboveground cables shall be laid on the Cable tray with cover as per the specification.

Laying of the cables underground shall be in trenches of min. 1 mt. depth in all types of soil both hard & soft soil including dewatering, if required. Big boulders, sharp edges of the steel sections, vegetarian, growth roots etc. if encountered shall be removed completely. Only soft earth excavated shall be kept for refilling. Such earth shall be approved by the Engineering-in-charge. Excavated trench shall be in true straight line as far as possible and bends if necessary shall be provided. Such bends shall be gradual and not sharp in nature, the excavated trench shall be approved by the Engineer-incharge before laying cables In case, during excavation hard rock is encountered which in the opinion of HPCL EIC/ Consultant cannot be excavated further, then additional sand bedding of 150 mm shall be provided over & above the 150 mm specified for the bedding. The decision of HPCL/ Consultant is final & binding in this regard. Rate of cable trench line item shall include excavation, supply and laying of two layers (150 mm thick each, below and above) of river sand conforming to IS 383 and a layer of good quality bricks of compressive strength min. 35 Kg/Sq cm. on top of the second layer of sand & backfilling with good quality excavated earth. cutting/excavation of RCC wherever encountered & construction of RCC culvert/ cable alley to be paid under RCC line item All care shall be taken to ensure that no underground utilities like cables, pipelines etc. gets damaged. However, in case any underground utility like cables/pipes are damaged, the same shall be repaired/ replaced by the Vendor immediately at no extra cost. Rate to include backfilling of the excavated earth & carting away surplus earth within the depot premise as directed by HPCL EIC/ Depot Manager.

Before cutting the cables exact length as per the site conditions shall be measured and recorded. Cut ends of the cable shall be wound by insulating tape to protect them from rain water etc. Cable ends shall not be kept open for long.

Power Cable shall be laid in separate trench and Signal & communication Cabling shall be laid in different trench. The same may be laid in common trench provided physical barrier in the form of bricks are provided in such a way that both are laid min 300 mm apart.

Cables shall be taken inside the Control Room/MCC room/Admin building or any other civil structure through existing Multi-diameter Cable Transit Frames & Blocks. MCT shall be free issued to Vendor. Multiple MCT blocks of multi-diameter type shall be provided for cable entry to control room, suitable cutout and structural supports for installation of MCT frames on the walls / floor of control rooms shall be provided. The MCT Block system should have only few components for facilitating simple, easy and quick assembly. The Multi-diameter based cable transits shall be repeatedly re-openable and re-usable without the need of special tools and discarding the modules in normal operation. The MCT frame shall be of galvanized steel material construction having minimum 6 mm thickness. The overall height of frame should not exceed 450 mm. The supply of frames shall be complete with multi diameter blocks with center core in all blocks or add-blocks with wraps and plugs / galvanized steel stay-plates / single piece compression wedge with galvanized steel bolts from same source. Solid blocks and insert blocks should not be used. MCT shall be supplied by vendor at no extra cost. Cost of the same is already included in line item for supply of FLP JBs/glands and MCTs. Vendor to quote accordingly.

Stay-plates shall be provided for separating the module layers. Material of the stay plate should be galvanized steel.

Wherever the cables have to cross the asphalt roads, the rate quoted shall include cutting of the asphalt WBM roads, RCC driveways, RCC slab or PCC slab etc including soling and necessary excavation to the required depth and back filling the trench with earth/river sand and restoring the cut portion by 9 "soling above earth filling/ sand fiiling and providing RCC 1:2:4 with 8mm reinforcement @ 200 mm c/c above soling. The backfilling shall be rolled and compacted before soling. Rates for RCC shall be paid under separate line item.

Road crossing shall be done through the Hume pipe. The existing Hume pipes may be used in case sufficient space is available for laying the cables. Supply & laying of the NP3 Hume pipes, if required, shall be in the scope of the Vendor.

Wherever the cables comes aboveground, a suitable size GI sleeve with bend shall be used. Such pipe shall be laid 150mm below ground level and the projecting bend shall

raise to 500mm above ground level along the steel/concrete/brick columns. The sleeve shall be neatly clamped by MS clamps of adequate size and wooden bushes. Necessary precautions shall be taken to make the opening water tight by wooden bushes.

For entering inside the tank farm, the cables shall be through the catwalk provided for Valve operation.

Whenever, the Cable is laid above ground, it shall be laid on the perforated cable tray with cover or on the GI Ladder type tray. The cable shall be tied on the GI Cable tray with GI Clamps. No PVC ties or MS wire shall be used for tying the Cable on the GI Cable tray. Bunching of Cables or laying Cable on top of each other is not permitted.

Separate Cable tray shall be used for laying Power & Signal/ communication/ Control Cables

The perforated GI Cable tray shall be supported at regular interval. The existing structural support at Gantry, Tanks may be used for supporting the Cable tray. In case additional supports are required the same shall be supplied & erected by the Vendor. Only structural support of Cable ladder & Cable tray will be paid separately vide structural item.

HPCL shall provide cable trench in the control room. The cable trench (length, width height), flooring modification to suit the erection of panels and consoles will be in vendor scope. All the cables shall be neatly clamped on the cable tray and loose hanging cables shall not be allowed.

Necessary loops of min 5 mtr. shall be provided at both ends of the main cables. Cable shall be laid without any joints.

Cable route markers at 20 m/c and at all the bends/ turnings shall be provided.

Bending radius of cables shall not be less than 12 times O.D. of cable.

All cores of cable shall be identified at both ends by means of PVC ferrule.

Line drivers & all other accessories required in this regard are included in the scope of work of the vendor.

Cable laying shall also include termination of Cables at both the ends. Cable leads shall be terminated at both ends by crimped type soldering.

Rate shall also include megger test by 1000V megger for establishing the healthiness of cable in the drum before removing the same, unwinding and straightening the cable & after laying of cables.

Approved Makes

Sr. No.	Equipment	Approved Make	
1	Camera	Bosch/Sony/Axis/Pelco/Verint/Honeywell / Indigo Vision/ GE/ American Dynamics/ Panasonic/ Infinova/ Samsung	
2	Layer 2 Gigabit Ethernet Switch	HP/ CISCO/ MOXA/ALLIED TELESYS/ DELL/TEJAS NETWORKS	
		RIUGGEDCOM/ SIXNET/ ELECTRALYSYS/	
3	Industrial Grade Layer 2 Ethernet Switch	HONEYWELL/ ROCKWELL/ SEIMENS/ GARRETCOM/	
	Switch	MOXA/ ALLIED TELESYS/ CISCO/ LANTECH/ GEOEQUIP/DELL/ TEJAS NETWORKS	
		Perle/ Atop/ One3/	
4	Media Converter	Garretcom/Moxa/Sixnet/Lantec/AMP/Allied Telesys/Cisco	
5	Optical Fiber	AMP/TE/Belden/Molex/Panduit/R&M/ Digilink/Schneider	
6	LIU	Belden/Molex/AMP/Panduit/R&M/D-Link/Digilink/UL	
7	Poles	Bajaj/ Philips/ Crompton Greaves/ Transrail/ Lighting Ltd./ Utkarsh/ Pyrotech/ Skipper	
	Video Management	Pelco/ Indigovision/Bosch/ Honeywell/ Verint/ Siemens	
8	Software	/Milestone/Genetec/ Omnivision/ Mindtree/ NEC/ Allgo vision/Infinova	
9	Server	HP/ Dell/ IBM/ Compaq / Lenovo	
10	Computer Workstation with Monitor	HP/ Dell/ IBM/ Compaq/ Lenovo	
11	LED TV/ MONITOR	PANASONIC/ SONY/ SAMSUNG/ LG/VU	
12	12 Ethernet Cables Belden/Molex/AMP/Tyco/Panduit/R&M/D-link		

13	Power Cables	Thermopad/Molex/Cord/Delton/Polycab/Havells	
14	Power Isolator Switch, Fuse Unit	Siemens/ L&T/ GE Power Controls/ Kaycee/ Schneider Electric	
15	Relays	OMRON/ OEN/ ALLEN BRADLEY/ PARAMOUNT/ IZUME DENKI/ PHOENIX CONTACT/ SEIMENS/ L&T/ GE/ BCH/ ALSTOM INDIA LTD (EE)	
16	Cable Tray & Tray Covers	Gram Engg/ Hopes Metal/ Indiana/ Globe Electricals/ MM Engg./ Calcutta Manufactureres (Kolkata)/ Elcon Cable Trays Pvt. Ltd.	
17	MCB. ELCB & MCCB	MDS/ INDOKUPP/ SEIMENS/ GE POWER CONTROL/ SCHNEIDER ELECTRIC/ ABB/ L&T	
18	Rack	Valrack/ Rittal/ APW /pyrotech	
40	TERMINAL	ELMEX/ CONNECTWELL/ C&S/ PHOENIX/	
19	BLOCKS	WAGO/ WEIDMULLER	
20	PROTECTIVE RELAYS	ALSTOM INDIA LTD (EE)	
21	AC POWER CONTACTOR	SEIMENS/ L&T/ GE POWER CONTROLS/ KAYCEE/ SCHNEIDER ELECTRIC/ CONTROLS & SWITCHGEAR	
22	AUXILIARY CONTACTORS, ELECTRICAL RELAYS	SEIMENS/ L&T/ GE POWER CONTROLS/ BCH/ ALSTOM INDIA LTD (EE)	
		LUCENT -AT & T/ FINOLEX/ D-LINK/	
23	FIBRE OPTIC	HCLCOMNET/ SEIMENS/ OPTEL/ ABB/ R&M/	
23	CABLE	PANDUIT/ SEIMON/ TORRENT/ CORNING/ TYCO/ AMP	
	FIDED ODTIO	SEIMENS/ R&M/ PANDUIT/ LUCENT- AT & T/	
24	FIBER OPTIC NETWORK	MODTAP/ OPTEL/ ABB/ HUBER + SUHNER/	
Z4	COMPONENTS	SEIMENS/ ALLIED TELESYS/ PHOENIX CONTACT	
25	VIDEO CABLE	FINOLEX/ FORT GLOSTER/ NICCO/ HAVEL/ UNIVERSAL CABLES/ FINECAB	
26	SURGE PROTECTION DEVICE	DEHN/ CITEL/ MTL/P&F	
27	DC POWER SUPPLY	VICOR/ LAMBA/ COSEL/ PHOENIX CONTACT/ SEIMENS	

28	Junction Box (Flame proof)	Baliga/ Exprotecta/Sudhir Switchgear/ FlexPro/ FCG /Sai Industries	
29	Junction Box (Non FLP, Weather Proof)	Baliga/ Exprotecta/Sudhir Switchgear/ FlexPro/ FCG/ Pyrotech/ BCH/ Rittal	
30	IP Phone /IP Speakers/ Outdoor Speakers	BOSCH / CISCO / COMMEND / DNH / GAI- TRONICS/AHUJA/Neumann	
31	Storage Device	HP/ Dell/ IBM/ Compaq / Lenovo/Qsan/Netgear	

LIST OF APPROVED MAKE / BRAND FOR CIVIL WORKS

S. No.	NAME OF MATERIAL	APPROVED MAKE	
1	Cement	L & T/Ultratech, Birla, RAMCO, CCI,	
2	Reinforcement Steel / Structural steel	TISCO, SAIL, TSRM, VIZAG STEEL,JISCO	
3	False ceiling material	Inter arch / Tiger steel / Luxalon / Intersil Metallic products (Conwed) / Kirbi / metcraft	
4	PVC / UPVC pipe	Supreme / Prince / Finolex	
5	Soil pipe	RIF, Varuna,	
6	PVC pipe	Supreme , Prince , Jain	
7	G.I. Fittings	R-Brand, K- Brand, Unik	
8	Brass hardware	Saifee, tube & hardware	
9	Aluminium hardware	Nov Bharat ,Jayant, E.C.I.E &Zaofa	
10	Stoneware pipe, gully trap		
11	C.I. Pipes & fittings	NECO, BIC	
12	Butterfly valves water type check valves	Leader, Audco, IVC, Fludiline	

	globe valves, gun metal gate valves	
13	C.I. Covers	NECO, BIC
14	Anchor bolts	Conforming to IS:2062 as approved by EIC
15	Nuts & bolts	TVS, GKW, UNBREAKO

Note:

- 1. All the Explosion proof / intrinsically safe items located in hazardous area shall have CMRI, BIS and PESO Certification.
- 2. In case of imported items the flameproof/ intrinsic certification from following agency shall be provided. i.e. ATEXFM/ BASEEFA/ PTB/ KEMA/ TUV etc. PESO certificate is mandatory for both Indian and imported items.
- 3. Only in exceptional cases, at sole discretion of owner, in case the bidder intends to provide any alternate makes then prior approval of owner is required. The bidder shall provide documents proving equivalency. The Decision of HPCL in this regard is final and binding.

ANNEXURE - A:

List of locations with address and contact person.

<u>Schedule 1 – North Zone:</u>

1 HPCL JAMMU LPG PLANT

Hindustan Petroleum Corporation limited

HPCL LANE #3, SIDCO COMPLEX, BARI BRAHMANA

JAMMU 181 133

JAMMU & KASHMIR

Contact Person: LOKESH KUMAR Contact Details: 08607991116 Email Id: lokeshkumar@hpcl.in

2 HPCL PAMPORE LPG PLANT

Hindustan Petroleum Corporation limited HPCL NH - 1A, NEAR GAS TURBINE, PAMPORE

SRINAGAR 192 121

JAMMU & KASHMIR

Contact Person: ANEES JEELANI QARI

Contact Details: 09419027114 Email Id: aneesjqari@hpcl.in

3 HPCL BAHADURGARH LPG PLANT

Hindustan Petroleum Corporation limited

HPCL VILLAGE - ASAUDHA, TEHSIL - BAHADURGARH

JHAJJAR 124 505 HARYANA

Contact Person: ABHAS KULSHRESHTHA

Contact Details: 09992734446 Email Id: kabhas@hpcl.in

4 HPCL HOSHIARPUR LPG PLANT

Hindustan Petroleum Corporation limited HPCL VILLAGE - DHAHA, P O - MANDIALAN

HOSHIARPUR 144 105 PUNJAB

Contact Person: NILESH VYAS Contact Details: 07583899711 Email Id: nileshvyas@hpcl.in

5 HPCL BHATINDA LPG PLANT

Hindustan Petroleum Corporation limited

HPCL BHATINDA LPG TERMINAL, VILL - PHULO KHARI, TAL - TALWANDI SABO

BHATINDA 151 302 PUNJAB Contact Person: SANJAY M SRIVASTAVA/PANKAJ KUMAR

Contact Details: 08108676665/8978833311

Email Id: smsri@hpcl.in

6 HPCL JIND LPG PLANT

Hindustan Petroleum Corporation limited

HPCL P. B. # 5, ROHTAK ROAD

JIND 126 102 HARYANA

Contact Person: ARUN BANSAL Contact Details: 09011074410

Email Id: arun@hpcl.in

7 HPCL LONI LPG TOP & PLANT

Hindustan Petroleum Corporation limited HPCL VILLAGE - TILLA SHAHBAJPUR, P O - LONI

GHAZIABAD 201 102

UTTAR PRADESH

Contact Person: SAURABH YADAV Contact Details: 09897692709 Email Id: saurabhyadav@hpcl.in

Schedule 2 - North West Zone:

1 HPCL AJMER LPG PLANT

Hindustan Petroleum Corporation limited

HPCL VILLAGE - GADERI, PO - ASHAPURA, VIA - NASIRABAD

AJMER 305 601 RAJASTHAN

Contact Person: LOKESH SAXENA Contact Details: 09923772776 Email Id: lokeshsaxena@hpcl.in

2 HPCL KOTA LPG PLANT

Hindustan Petroleum Corporation limited HPCL VILLAGE - MANDANA, VIA - CABLE NAGAR

KOTA 325 003 RAJASTHAN

Contact Person: RAKESH BHARTI Contact Details: 09991992840 Email Id: bhartirakesh@hpcl.in

3 HPCL GANDHINAGAR LPG PLANT

Hindustan Petroleum Corporation limited HPCL CHARA SONIPUR ROAD, SARDHAV

GANDHINAGAR

382 640

GUJARAT

Contact Person: NIKISH PARIKH Contact Details: 09445007014 Email Id: nikishparikh@hpcl.in

4 HPCL HAZIRA LPG PLANT

Hindustan Petroleum Corporation limited

HPCL ONGC ICHHAPOR ROAD, POST-ICHHAPORE, HAZIRA, SURAT

SURAT 394 510 GUJARAT

Contact Person: ANAND SWARUP SINGH

Contact Details: 09329262735 Email Id: anandssingh@hpcl.in

5 HPCL INDORE LPG PLANT

Hindustan Petroleum Corporation limited HPCL VILLAGE - RAHUKHEDI, A.B. ROAD, NH - 3

INDORE 453 771

MADHYA PRADESH

Contact Person: LOKENDER GARBYAL

Contact Details: 9530903046 Email Id: lokendergarbyal@hpcl.in

6 HPCL BHOPAL LPG PLANT

Hindustan Petroleum Corporation limited

"HPCL PLOT NO. 93,MPAKVN INDUSTRIAL AREA ,PILUKHEDI, TEH.-NARSINGHGARH

RAJGARH 465667

MADHYA PRADESH

Contact Person: RAHUL D PATRE Contact Details: 07320919763 Email Id: rahuldpatre@hpcl.in

7 HPCL JABALPUR LPG PLANT

Hindustan Petroleum Corporation limited HPCL MANERI INDUSTRIAL AREA, P O - MANERI

MANDLA 481 886 MADHYA PRADESH

MADITIATINADESIT

Contact Person: RISHI KUMAR SINGH Contact Details: 09165522966

Email Id: rishiksingh@hpcl.in

<u>Schedule 3 – South Zone:</u>

1 HPCL YEDIYUR LPG PLANT

Hindustan Petroleum Corporation limited HPCL MARKHONAHALLI ROAD, VILLAGE YEDIYUR, TAL - KUNIGAL, TUMKUR 572 142 KARNATAKA

Contact Person: S N MASHALDI Contact Details: 919448954820 Email Id: mashaldi@hpcl.in

2 HPCL MYSORE LPG PLANT

Hindustan Petroleum Corporation limited HPCL 425, HEBBAL INDS AREA, P O - METAGALLI

MYSORE 570 016 KARNATAKA

Contact Person: SHIVRAJ SINGH Contact Details: 09391111128 Email Id: shivraj@hpcl.in

3 HPCL MANGALORE LPG PLANT

Hindustan Petroleum Corporation limited

HPCL VILLAGE - BALA, VIA - KATIPALLA, MANGALORE

DAKSHIN KANNADA

575 030 KARNATAKA

Contact Person: ARUN JAYENDRAN Contact Details: 09400318306 Email Id: arunjayendran@hpcl.in

4 HPCL HUBLI LPG PLANT

Hindustan Petroleum Corporation limited

HPCL PLOT # 165/166, BELUR INDUSTRIAL AREA, KIADB

DHARWAD 580 011 KARNATAKA

5

Contact Person: KONATHALA NOOKESH BABU

Contact Details: 08056771071 Email Id: nookeshbk@hpcl.in HPCL GUMMIDIPONDI LPG PLANT

Hindustan Petroleum Corporation limited

HPCL PLOT # J-12, SIPCOT INDS. AREA, GUMMIDIPOONDI

THIRUVALLUR 601 201 TAMILNADU

Contact Person: J PREMKUMAR Contact Details: 09487844310 Email Id: jprem@hpcl.in

6 HPCL MADURAI LPG PLANT

Hindustan Petroleum Corporation limited

HPCL 171/172, SIDCO INDUSTRIAL ESTATE, KAPPALUR

MADURAI 625 008 TAMILNADU Contact Person: DESAMSETTY KRISHNA N V U

Contact Details: 09490706048

Email Id: udayk@hpcl.in

7 HPCL PALGHAT LPG PLANT

Hindustan Petroleum Corporation limited

HPCL P. B. # 2, KANJIKODE

PALGHAT 678 621 KERALA

Contact Person: MOHAMED TAJIB SAIT A

Contact Details: 09605001969

Email Id: tajib@hpcl.in

8 HPCL KOCHI LPG PLANT

Hindustan Petroleum Corporation limited HPCL SEA PORT AIRPORT ROAD, IRUMPANAM

ERNAKULUM 682 309 KERALA

Contact Person: K CHANDRA MOHAN MUNI

Contact Details: 08008496666 Email Id: kmohan@hpcl.in

9 HPCL MANGALORE LPG IMPORT FACILITY

Hindustan Petroleum Corporation limited

HPCL VILLAGE - BALA, VIA - KATIPALLA, MANGALORE

DAKSHIN KANNADA

576 030 KARNATAKA

Contact Person: R VENU MADHAV Contact Details: 09441886323 Email Id: rvmadhav@hpcl.in

Schedule 4 - North Central Zone:

1 HPCL UNNAO LPG PLANT

Hindustan Petroleum Corporation limited

HPCL SITE - 2, ROAD - 13, UPSIDC INDS AREA, P. B. # 18

UNNAO 209 801

UTTAR PRADESH

Contact Person: GUPTA AMAR Contact Details: 09897782380 Email Id: amargupta@hpcl.in

2 HPCL GORAKHPUR LPG PLANT

Hindustan Petroleum Corporation limited HPCL VILLAGE-BOKTA (GIDA), SAHJANWA

GORAKHPUR 273 209 **UTTAR PRADESH**

Contact Person: ABHISHEK SRIVASTAVA

Contact Details: 09415025214

Email Id: abhishekshrivastava@hpcl.in

3 HPCL PURNEA LPG PLANT

Hindustan Petroleum Corporation limited

HPCL INDUSTRIAL GROWTH CENTRE, NH-31, MARANGA

PURNEA 854 301 BIHAR

Contact Person: SANJAY KUMAR Contact Details: 08008296123 Email Id: sanjaykumar3@hpcl.in

4 HPCL PATNA LPG PLANT

Hindustan Petroleum Corporation limited

HPCL GIDDHA INDUSTRIAL GROWTH CENTRE, ARA

BHOJPUR 802 314 BIHAR

Contact Person: KRISHNA KUMAR Contact Details: 08087063918 Email Id: krishnakumar@hpcl.in

5 HPCL CHAMPARAN LPG PLANT

Hindustan Petroleum Corporation limited

HPCL VILLAGE PANAPUR, KOBEYA BLOCK HARSIDDHI, SUBDIVISION-ARERAJ EAST

CHAMPARAN SUGAULI 845 422 CHAMPARAN

Contact Person: RAVINDRA KUMAR Contact Details: 7408885666 Email Id: ravindrakumar@hpcl.in

<u>Schedule 5 – East Zone:</u>

1 HPCL JATNI LPG PLANT

Hindustan Petroleum Corporation limited HPCL CHHANAGHAR, P.O & P.S. - JATNI

KHURDA ROAD

752 050 ORISSA

Contact Person: ARUN KUMAR NAYAK

Contact Details: 09900722302 Email Id: arunknayak@hpcl.in

2 HPCL RAIPUR LPG PLANT

Hindustan Petroleum Corporation limited

HPCL MANDIR HASAUD

RAIPUR

492 101

CHATTISGARH

Contact Person: KSHITIJ TIWARI Contact Details: 08140588226 Email Id: kshitijtiwari@hpcl.in

3 HPCL PAHARPUR LPG PLANT

Hindustan Petroleum Corporation limited HPCL P-4, OIL INSTALLATION ROAD, PAHARPUR

KOLKATA 700 088

WEST BENGAL

Contact Person: ROHIT RAJ Contact Details: 09051524111 Email Id: rohitraj@hpcl.in

4 HPCL PANAGARH LPG PLANT

Hindustan Petroleum Corporation limited

HPCL PANGARH LPG BOTTLING PLANT WBIDC, KOTA

KOLKATA 713148

WEST BENGAL

Contact Person: RAM CHANDRA SAHA

Contact Details: 07542024597 Email Id: ramcsaha@hpcl.in

5 HPCL JAMSHEDPUR LPG PLANT

Hindustan Petroleum Corporation limited

HPCL ADITYAPUR INDS AREA (LARGE SECTOR), GAMARIA

SARAIKELA - KHARSWA

832 108 **JHARKHAND**

Contact Person: AHIJIT BHOWMICK Contact Details: 09874066660 Email Id: ahijitbhowmick@hpcl.in

Schedule 6 - West Zone:

1 HPCL HAZARWADI LPG PLANT

Hindustan Petroleum Corporation limited HPCL P O - BHILVADI RAILWAY STATION

SANGLI 416 303

MAHARASHTRA

Contact Person: VIJENDLA KIRAN JEEVAN

Contact Details: 09618728886 Email Id: kjeevan@hpcl.in

2 HPCL SOLAPUR LPG PLANT

Hindustan Petroleum Corporation limited

HPCL PLOT NO F-5, CHINCHOLI, TAL.MOHOL

SOLAPUR 413225

MAHARASHTRA

Contact Person: MANOJ KUMAR Contact Details: 08758344040 Email Id: manojkumar@hpcl.in

3 HPCL CHANDRAPUR LPG PLANT

Hindustan Petroleum Corporation limited

HPCL PLOT # B-32/33, MIDC AREA

CHANDRAPUR

442 406

MAHARASHTRA

Contact Person: SUSHILKUMAR PRALHAD TEKAM

Contact Details: 09158226777

Email Id: sushilkumartekam@hpcl.in

4 HPCL MAHUL LPG PLANT

Hindustan Petroleum Corporation limited

HPCL L U GADKARI MARG, BEHIND HP REFINERY, CHEMBUR

MUMBAI 400 074

MAHARASHTRA

Contact Person: PANKAJ KUMAR Contact Details: 09559589988 Email Id: pankajksingh@hpcl.in

5 HPCL AURANGABAD LPG PLANT

Hindustan Petroleum Corporation limited

HPCL H - 1, MIDC, CHIKALTHANA

AURANGABAD

431 210

MAHARASHTRA

Contact Person: DEBARUN KUNDU Contact Details: 09920759665 Email Id: dkundu@hpcl.in

6 HPCL GOA LPG PLANT

Hindustan Petroleum Corporation limited

HPCL PLOT # 150, KUNDAIM INDUSTRIAL ESTATE, P.B. # 34

PONDA 403 115 GOA

Contact Person: VISHWAS KAMANE Contact Details: 07720007767 Email Id: vishwasskamane@hpcl.in

<u>Schedule 7 – South Central Zone:</u>

1 HPCL RAJAHMUNDRY LPG PLANT

Hindustan Petroleum Corporation limited

HPCL KORUKONDA-GOKAVARAM HIGH ROAD, NEAR VEERALANKAPALLI, GOKAVARAM POST,

RAJAHMUNDRY EAST GODAVARI

533 286

ANDHRA PRADESH

Contact Person: S RAHA ROY Contact Details: 07781008383 Email Id: sraharoy@hpcl.in

2 HPCL CHERLAPALLI LPG PLANT

Hindustan Petroleum Corporation limited HPCL HCL PO, P. B. # 2, CHERLAPALLY

HYDERABAD 500 051

ANDHRA PRADESH

Contact Person: G RAMESH Contact Details: 09902800277 Email Id: guguloth@hpcl.in

3 HPCL WARANGAL LPG PLANT

Hindustan Petroleum Corporation limited

HPCL KAMALAPUR (V&M), WARANGAL URBAN DIST.

WARANGAL 505 102 TELANGANA

Contact Person: RAJKUMAR GARAPATI

Contact Details: 08499992980 Email Id: rajkumargarapati@hpcl.in

4 HPCL KONDAPALLI LPG PLANT

Hindustan Petroleum Corporation limited

HPCL INDUSTRIAL DEVELOPMENT AREA, KONDAPALLI

KRISHNA 521 228

ANDHRA PRADESH

Contact Person: B V NAYAK Contact Details: 9491306293 Email Id: bvnayak@hpcl.in

5 HPCL ANANTAPUR LPG PLANT

Hindustan Petroleum Corporation limited HPCL VILL - VADIAMPET, MANDAL: BUKKARAYA,

ANANTAPUR 515 731

ANDHRA PRADESH

Contact Person: POLIMERA MURALI SP KUMAR

Contact Details: 09000711130 Email Id: mspkpolimera@hpcl.in

ANNEXURE B:

1. Jammu LPG Plant (North Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	4
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	0
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	1	0
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	1
11	TT Parking Area	PTZ CAMERA	0	0
	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	2
13	Perimeter	Fixed Camera FL50	6	0
	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	11	23

2. Pampore LPG Plant (North Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	1
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1

8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	0	2
11	TT Parking Area	PTZ CAMERA	0	1
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	2
13	Perimeter	Fixed Camera FL50	8	5
14	Loading Unloading platforms	Fixed Camera FL12	1	1
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	1	2
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	13	27

3. <u>Bahadurgarh LPG Plant (North Zone):</u>

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	3
1	TT Gantry	PTZ CAMERA	0	1
		FLP Fixed Camera FL12	0	3
2	Bulk Storage area	Fixed Camera FL12	0	1
3	Tank wagon gantry	Fixed Camera FL12	0	8
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	0
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	1	0
8	Control Room	Indoor (Dome) 2MP	0	0
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	1
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	0
13	Perimeter	Fixed Camera FL50	2	10
14	Loading Unloading platforms	Fixed Camera FL12	1	0
15	Storage shed	FLP Fixed Camera FL12	1	0
16	Valve changing shed	FLP Fixed Camera FL12	1	0
17	Filling shed	FLP Fixed Camera FL12	1	1
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	12	33

4. Hoshiarpur LPG Plant (North Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	0	1
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	1	0
8	Control Room	Indoor (Dome) 2MP	0	0
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	2
		Fixed camera motorized zoom 2MP	1	1
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	0	3
13	Perimeter	Fixed Camera FL50	1	9
14	Loading Unloading platforms	Fixed Camera FL12	1	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	6	33

5. **Bhatinda LPG Plant (North Zone):**

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	8
1	TT Gantry	PTZ CAMERA	1	1
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	0	1
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	1	0
7	Weigh bridge	Fixed Camera FL12	0	2

8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	1
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	0	4
13	Perimeter	Fixed Camera FL50	4	11
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	1	2
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	8	43

6. <u>Jind LPG Plant (North Zone):</u>

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	0
2	Bulk Storage area	Fixed Camera FL12	0	3
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	0
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	0	4
11	TT Parking Area	PTZ CAMERA	1	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	1
13	Perimeter	Fixed Camera FL50	7	8
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	2
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	11	32

7. Loni LPG TOP (North Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	4
1	TT Gantry	PTZ CAMERA	0	1
		FLP Fixed Camera FL12	0	4
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	2
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	1
7	Weigh bridge	Fixed Camera FL12	1	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	2
		Fixed camera motorized zoom 2MP	1	2
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	3	4
13	Perimeter	Fixed Camera FL50	4	11
14	Loading Unloading platforms	Fixed Camera FL12	2	1
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	1	4
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	12	44

8. <u>Unnao LPG Plant (North Central Zone):</u>

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	2	2
1	TT Gantry	PTZ CAMERA	0	1
		FLP Fixed Camera FL12	0	5
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1

10	PMCC	Indoor (Dome) 2MP	0	2
		Fixed camera motorized zoom 2MP	0	2
11	TT Parking Area	PTZ CAMERA	1	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	1
13	Perimeter	Fixed Camera FL50	6	8
14	Loading Unloading platforms	Fixed Camera FL12	1	1
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	4
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	11	35

9. Gorakhpur LPG Plant (North Central Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	1	0
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	0	2
11	TT Parking Area	PTZ CAMERA	1	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	1
13	Perimeter	Fixed Camera FL50	6	8
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	1	2
18	TT crew amenity building	Fixed Camera FL12	0	2
		TOTAL	12	30

10. Purnea LPG Plant (North Central Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	2	2
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	0
2	Bulk Storage area	Fixed Camera FL12	1	1
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	1
4	LPG Pump house	Fixed camera motorized zoom 2MP	1	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	2
11	TT Parking Area	PTZ CAMERA	1	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	1
13	Perimeter	Fixed Camera FL50	2	8
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	10	28

11. Patna LPG Plant (North Central Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	0
2	Bulk Storage area	Fixed Camera FL12	0	2
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1

10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	2	1
11	TT Parking Area	PTZ CAMERA	0	1
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	0
13	Perimeter	Fixed Camera FL50	2	8
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	8	30

12. Champaran LPG Plant (North Central Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	4
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	1
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	0
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	0	1
13	Perimeter	Fixed Camera FL50	9	0
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	2
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	11	20

13. Jatni LPG Plant (East Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	0	2
3	Tank wagon gantry	Fixed Camera FL12	2	6
		FLP Fixed Camera FL12	0	1
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	1
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	0
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	1	0
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	0	3
11	TT Parking Area	PTZ CAMERA	1	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	3	0
13	Perimeter	Fixed Camera FL50	0	10
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	10	39

14. Raipur LPG Plant (East Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	2	1
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	4
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	2	6
		FLP Fixed Camera FL12	0	3
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1

9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	2
		Fixed camera motorized zoom 2MP	2	2
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	2
13	Perimeter	Fixed Camera FL50	0	20
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	8	52

15. Paharpur LPG Plant (East Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	0
2	Bulk Storage area	Fixed Camera FL12	1	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP		0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	0
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	1	0
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	1	0
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	0
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	1
13	Perimeter	Fixed Camera FL50	0	6
14	Loading Unloading platforms	Fixed Camera FL12	1	0
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3

18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	9	20

16. Panagarh LPG Plant (East Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	4
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	1
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	1
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	1	0
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	0
11	TT Parking Area	PTZ CAMERA	1	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	3	0
13	Perimeter	Fixed Camera FL50	22	0
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	1	0
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	2	0
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	32	16

17. Jamshedpur LPG Plant (East Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	2
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	1
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
4	LPG Pump house	FLP Fixed Camera FL12	0	1

		Fixed camera motorized zoom 2MP	0	1
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	0
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	0
11	TT Parking Area	PTZ CAMERA	0	0
	Main Entry/Exit gate/Emergency Exit	Fixed camera Motorized zoom 4K		
12	Gate	Tixed cullera Motorized 200111 4K	1	2
13	Perimeter	Fixed Camera FL50	5	0
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	1	1
18	TT crew amenity building	Fixed Camera FL12	1	0
		TOTAL	10	16

18. Ajmer LPG Plant (North West Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	4
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	1
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	3
		Fixed camera motorized zoom 2MP	1	3
11	TT Parking Area	PTZ CAMERA	1	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	0	4

13	Perimeter	Fixed Camera FL50	5	10
14	Loading Unloading platforms	Fixed Camera FL12	0	4
15	Storage shed	FLP Fixed Camera FL12	0	2
16	Valve changing shed	FLP Fixed Camera FL12	0	3
17	Filling shed	FLP Fixed Camera FL12	0	5
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	8	49

19. Kota LPG Plant (North West Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	2
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	1
2	Bulk Storage area	Fixed Camera FL12	1	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	0
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	0
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	0	1
11	TT Parking Area	PTZ CAMERA	1	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	1
13	Perimeter	Fixed Camera FL50	4	2
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	1	1
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	12	18

20. Gandhinagar LPG Plant (North West Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
1	TT Gantry	Fixed Camera FL12	1	2

		PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	0
2	Bulk Storage area	Fixed Camera FL12	0	1
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	1
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	1
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	0
13	Perimeter	Fixed Camera FL50	7	6
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	12	24

21. Hazira LPG Plant (North West Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	2
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	1
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1

		Fixed camera motorized zoom 2MP	2	0
11	TT Parking Area	PTZ CAMERA	0	0
	Main Entry/Exit gate/Emergency Exit	Fixed camera Motorized zoom 4K		
12	Gate		1	2
13	Perimeter	Fixed Camera FL50	7	3
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	12	23

22. Indore LPG Plant (North West Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	1
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	2
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	0
11	TT Parking Area	PTZ CAMERA	1	1
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	3
13	Perimeter	Fixed Camera FL50	7	5
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	4
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	12	32

23. Bhopal LPG Plant (North West Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	4
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	1
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	3
13	Perimeter	Fixed Camera FL50	11	9
14	Loading Unloading platforms	Fixed Camera FL12	0	3
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	2
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	15	34

24. Jabalpur LPG Plant (North West Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	1
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	1
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0

7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	2	0
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	2
		Fixed Compre FLFO		_
13	Perimeter	Fixed Camera FL50	4	4
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	1	0
17	Filling shed	FLP Fixed Camera FL12	2	1
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	11	23

25. <u>Hazarwadi LPG Plant (West Zone):</u>

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	2
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	3
2	Bulk Storage area	Fixed Camera FL12	0	1
3	Tank wagon gantry	Fixed Camera FL12	0	8
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP		0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	0
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	1	0
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	3	0
11	TT Parking Area	PTZ CAMERA		0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	2
13	Perimeter	Fixed Camera FL50	4	6
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1

16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	12	35

26. Sholapur LPG Plant (West Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	1
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP		0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	2	1
11	TT Parking Area	PTZ CAMERA		0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	0	5
13	Perimeter	Fixed Camera FL50	12	4
14	Loading Unloading platforms	Fixed Camera FL12	0	3
15	Storage shed	FLP Fixed Camera FL12	0	2
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	17	31

27. Chandrapur LPG Plant (West Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	2
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	0
2	Bulk Storage area	Fixed Camera FL12	1	1

3	Tank wagon gantry	Fixed Camera FL12	0	1
		FLP Fixed Camera FL12	0	1
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	0
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	0	2
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	1
13	Perimeter	Fixed Camera FL50	5	0
14	Loading Unloading platforms	Fixed Camera FL12	1	1
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	1
18	TT crew amenity building	Fixed Camera FL12	0	0
		TOTAL	10	16

28. Mahul LPG Plant (West Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	4	0
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	0
2	Bulk Storage area	Fixed Camera FL12	0	1
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	1	0
4	LPG Pump house	Fixed camera motorized zoom 2MP		0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	0
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	1
11	TT Parking Area	PTZ CAMERA		0

12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	0
13	Perimeter	Fixed Camera FL50	4	0
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	2
18	TT crew amenity building	Fixed Camera FL12	0	0
		TOTAL	13	12

29. Aurangabad LPG Plant (West Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	2
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	0	1
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	0
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	3
11	TT Parking Area	PTZ CAMERA		0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	3
13	Perimeter	Fixed Camera FL50	6	9
14	Loading Unloading platforms	Fixed Camera FL12	2	0
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	1	2
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	12	31

30. Goa LPG Plant (West Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	2
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	1
2	Bulk Storage area	Fixed Camera FL12	0	1
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	1
4	LPG Pump house	Fixed camera motorized zoom 2MP		0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	0
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	1	0
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	1	0
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	0	1
11	TT Parking Area	PTZ CAMERA		0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	0
13	Perimeter	Fixed Camera FL50	0	4
14	Loading Unloading platforms	Fixed Camera FL12	1	0
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	1	0
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	8	15

31. Rajahmundry LPG Plant (South Central Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	1	0
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	1

7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	0	2
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	1
13	Perimeter	Fixed Camera FL50	9	7
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	13	29

32. Cherlapalli LPG Plant (South Central Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	1
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	1	3
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP		0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	1
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	2	0
11	TT Parking Area	PTZ CAMERA		0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	0
13	Perimeter	Fixed Camera FL50	2	14
14	Loading Unloading platforms	Fixed Camera FL12	1	1
15	Storage shed	FLP Fixed Camera FL12	0	1

16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	2
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	10	34

33. Warangal LPG Plant (South Central Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	1
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	1
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	0
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	0
11	TT Parking Area	PTZ CAMERA		0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	3	2
13	Perimeter	Fixed Camera FL50	10	8
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	16	29

34. Kondapalli LPG Plant (South Central Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	1
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	0	0

3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	6
4	LPG Pump house	Fixed camera motorized zoom 2MP		0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	1	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	2
		Fixed camera motorized zoom 2MP	0	2
11	TT Parking Area	PTZ CAMERA		0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	3	0
13	Perimeter	Fixed Camera FL50	2	25
14	Loading Unloading platforms	Fixed Camera FL12	1	1
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	9	49

35. Anantapur LPG Plant (South Central Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	1
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	1
4	LPG Pump house	Fixed camera motorized zoom 2MP		0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	0
11	TT Parking Area	PTZ CAMERA		0

12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	1
13	Perimeter	Fixed Camera FL50	7	10
14	Loading Unloading platforms	Fixed Camera FL12		2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	1	2
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	12	28

36. Yediyur LPG Plant (South Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	2	6
1	TT Gantry	PTZ CAMERA	2	0
		FLP Fixed Camera FL12	0	2
2	Bulk Storage area	Fixed Camera FL12	2	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	3
4	LPG Pump house	Fixed camera motorized zoom 2MP		0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	1
7	Weigh bridge	Fixed Camera FL12	1	0
8	Control Room	Indoor (Dome) 2MP	1	0
9	Fire Engine shed	Indoor (Dome) 2MP	1	0
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	4	0
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	0
13	Perimeter	Fixed Camera FL50	4	11
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	0	3
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	19	33

37. Mysore LPG Plant (South Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	4
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	1
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	1
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	2	0
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	0	2
13	Perimeter	Fixed Camera FL50	8	5
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	2	0
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	13	25

38. Mangalore LPG Plant (South Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	0
1	TT Gantry	PTZ CAMERA	0	0
		FLP Fixed Camera FL12	0	1
2	Bulk Storage area	Fixed Camera FL12	1	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	1
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	0
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0

7	Weigh bridge	Fixed Camera FL12	0	0
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	0
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	1
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	0	2
13	Perimeter	Fixed Camera FL50	13	2
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	4	0
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	20	14

39. Hubli LPG Plant (South Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	2	2
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	3
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	1
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	1
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	0	4
13	Perimeter	Fixed Camera FL50	9	6
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1

16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	3	0
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	16	27

40. Gummudipondi LPG Plant (South Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	4
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	3
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	3
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	0
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	0
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	3
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	1
13	Perimeter	Fixed Camera FL50	14	18
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	3	0
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	22	40

41. Madurai LPG Plant (South Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	4
1	TT Gantry	PTZ CAMERA	0	1
		FLP Fixed Camera FL12	0	3
2	Bulk Storage area	Fixed Camera FL12	0	0

3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	3
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	1	0
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	0
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	2
		Fixed camera motorized zoom 2MP	0	2
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	1	1
13	Perimeter	Fixed Camera FL50	9	3
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	4	0
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	15	26

42. Palghat LPG Plant (South Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	1	3
1	TT Gantry	PTZ CAMERA	1	0
		FLP Fixed Camera FL12	0	4
2	Bulk Storage area	Fixed Camera FL12	0	0
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	0
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	0
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	2	1
11	TT Parking Area	PTZ CAMERA	0	0

12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	2	1
13	Perimeter	Fixed Camera FL50	8	4
14	Loading Unloading platforms	Fixed Camera FL12	0	2
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	2	0
18	TT crew amenity building	Fixed Camera FL12	0	2
		TOTAL	16	25

43. Kochi LPG Plant (South Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	0	4
1	TT Gantry	PTZ CAMERA	0	1
		FLP Fixed Camera FL12	0	1
2	Bulk Storage area	Fixed Camera FL12	0	1
3	Tank wagon gantry	Fixed Camera FL12	0	0
		FLP Fixed Camera FL12	0	2
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	0	1
7	Weigh bridge	Fixed Camera FL12	0	1
8	Control Room	Indoor (Dome) 2MP	0	1
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	1
		Fixed camera motorized zoom 2MP	1	1
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	0	2
13	Perimeter	Fixed Camera FL50	18	6
14	Loading Unloading platforms	Fixed Camera FL12	0	3
15	Storage shed	FLP Fixed Camera FL12	0	1
16	Valve changing shed	FLP Fixed Camera FL12	0	1
17	Filling shed	FLP Fixed Camera FL12	4	0
18	TT crew amenity building	Fixed Camera FL12	0	2
		TOTAL	23	31

44. Mangalore LPG Import Facility (South Zone):

SN	Activity Area	Type of Cameras	Existing cameras	Requirement
		Fixed Camera FL12	7	1
1	TT Gantry	PTZ CAMERA	0	2
		FLP Fixed Camera FL12	0	0
2	Bulk Storage area	Fixed Camera FL12	4	3
3	Tank wagon gantry	Fixed Camera FL12	3	9
		FLP Fixed Camera FL12	0	3
4	LPG Pump house	Fixed camera motorized zoom 2MP	0	0
5	Licensed Area Entry / Exit Gate	Fixed camera motorized zoom 2MP	0	1
6	PLT receiving station	Fixed camera motorized zoom 2MP	1	1
7	Weigh bridge	Fixed Camera FL12	0	2
8	Control Room	Indoor (Dome) 2MP	2	0
9	Fire Engine shed	Indoor (Dome) 2MP	0	1
10	PMCC	Indoor (Dome) 2MP	0	2
		Fixed camera motorized zoom 2MP	2	0
11	TT Parking Area	PTZ CAMERA	0	0
12	Main Entry/Exit gate/Emergency Exit Gate	Fixed camera Motorized zoom 4K	8	0
13	Perimeter	Fixed Camera FL50	0	25
14	Loading Unloading platforms	Fixed Camera FL12	0	0
15	Storage shed	FLP Fixed Camera FL12	0	0
16	Valve changing shed	FLP Fixed Camera FL12	0	0
17	Filling shed	FLP Fixed Camera FL12	0	0
18	TT crew amenity building	Fixed Camera FL12	0	1
		TOTAL	27	51



		30						
GENERAL DOCUMENT								
SI.No.	Description	Attached File	Set Value	Supporting Doc. Req'd				
1	GENERAL TERMS AND CONDITIONS	1. GTC_Works_29.07.2021.pdf	-	No				
2	NOTE TO BIDDERS ON GST	2. NOTE TO BIDDERS ON GST.pdf	-	No				
3	CPBG FORMAT	3. CPBG.pdf	-	No				
4	VENDOR DETAILS AND GST DECLARATION	4.VENDOR DETAILS AND GST DECLARATION.pdf	T -	No				
5	E PAYMENT MANDATE	5. E PAYMENT MANDATE.pdf	-	No				
6	DECLARTIONS TO UPLOAD	6. DECLARATIONS BLACKLISTING AND RELATIVES.pdf	-	No				
7	BID SECURITY DECLARATION	7. BID SECURITY DECLARATION_1.pdf	-	No				
8	BORDER CLAUSE DECLARATION	8. Declaration by Bidder - Border Clause.pdf	-	No				
9	INTEGRITY PACT	INTEGRITY PACT - Revised.pdf	-	No				
10	TIPS FOR BID SUBMISSION	TipsBidsubmission.PDF	-	No				



ANNEXURE - 7a (SPECIMEN)

7a. GENERAL TERMS & CONDITIONS OF WORKS CONTRACT

1 PRELIMINARY

- 1.1 This is a Contract for execution of job as defined in tender document at the specified location
- 1.2 The tenderer for the abovementioned item of work is the company/ proprietary concern/ individual (as per details & address mentioned in the unpriced bid) and undersigned (digitally) is authorized to submit the bid on behalf of tenderer.
- 1.3 The terms and conditions mentioned hereunder are the terms and conditions of the Contract for the execution of the work mentioned under item 1.1 above.
- 1.4 lt is the clear understanding between Hindustan Petroleum Corporation Limited and tenderer that in case the bid of tenderer is accepted by the and an intimation to that effect is so Hindustan Petroleum Corporation Limited issued and also a Procurement Order is on the tenderer this document shall form part of the Contract between the parties and terms and conditions hereunder would govern the parties interest.
- 1.5 Interpretation of Contract Documents: All documents forming part of the Contract are to be taken mutually explanatory. Should there be any discrepancy, inconsistency, error or omission in the contract, the decision of the Owner/Engineer-in-Charge/Site-in-Charge shall be the final and the contractor shall abide by the decision. The decision shall not be arbitrable. Works shown upon the drawings but not mentioned in the specification or described in the specifications without being shown on the drawings shall nevertheless be deemed to be included in the same manner as if they are shown in the drawings and described in the specifications.
- 1.6 Special conditions of Contract: The special conditions of contract, if any provided and whenever and wherever referred to shall be read in conjunction with General Terms and Conditions of contract, specifications, drawings, and any other documents forming part of this contract wherever the context so requires. Notwithstanding the subdivision of the documents into separate sections, parts volumes, every section, part or volume shall be deemed to be supplementary or complementary to each other and shall be read in whole. In case of any misunderstanding arising the same shall be referred to decision of the Owner/ Engineer-in-Charge/Site-in-Charge and their decision shall be final and binding and the decision shall not be arbitrable.

It is the clear understanding that wherever it is mentioned that the Contractor shall do/perform a work and/or provide facilities for the performance of the work, the doing or the performance or the providing of the facilities is at the cost and expenses of the Contractor not liable to be paid or reimbursed by the Owner.



- ® 1.7 The Order of Precedence of documents shall be as follows with document at level 1 having the highest precedence (Refer Annexure 22 Govt. Guideline Sr. No. 12)
 - 1. Contract Agreement
 - 2. Detailed Letter of Acceptance along with its enclosures
 - 3. Letter of Award / Fax of Acceptance
 - 4. Job Specifications (specific to particular job only)
 - 5. Drawings
 - 6. Special Conditions of Contract
 - 7. Technical Specifications
 - 8. Instructions to Bidders
 - 9. General Conditions of Contract
 - 10. Other Documents

Any amendment / change order issued after signing of formal contract shall take precedence over respective clauses of the formal contract and its annexures

2. **DEFINITIONS**

In this contract unless otherwise specifically provided or defined and unless a contrary intention appears from the contract the following words and expressions are used in the following meanings;

- 2.1 The term "Agreement" wherever appearing in this document shall be read as "Contract".
- 2.2 The "Authority" for the purpose of this Contract shall be the **Chairman and Managing Director** or any other person so appointed or authorised.
- 2.3 The "Chairman and Managing Director" shall mean the Chairman and Managing Director of HINDUSTAN PETROLEUM CORPORATION LIMITED or any person soappointed, nominated or designated and holding the office of Chairman & Managing Director.
- 2.4 The "**Change Order**" means an order given in writing by the Engineer-in-Charge or by Owner to effect additions to or deletion from or alterations into the Work.
- 2.5 The "Construction Equipment" means all appliances and equipment of whatsoever nature for the use in or for the execution, completion, operation or maintenance of the work except those intended to form part of the Permanent Work.
- 2.6 The "Contract" between the Owner and the Contractor shall mean and include all documents like enquiry, tender submitted by the contractor and the procurement order issued by the owner and other documents connected with the issue of the procurement order and orders, instruction, drawings, change orders, directions issued by the Owner/Engineer-in-Charge/Site-in-Charge for the execution, completion and commissioning of the works and the period of contract mentioned in the Contract including such periods of time extensions as may be granted by the owner at the request of the contractor and such period of time for which the work is continued by the contractor for purposes of completion of the work.
- 2.7 "**The Contractor**" means the person or the persons, firm or Company whose tender has been accepted by the Owner and includes the Contractor's legal heirs, representative, successor(s) and permitted assignees.
- ® REVISION: PROC-021/01.07.2017



- 2.8 The "**Drawings**" shall include maps, plans and tracings or prints thereof with any modifications approved in writing by the Engineer-in-Charge and such other drawings as may, from time to time, be furnished or approved in writing by the Engineer-in-Charge.
- 2.9 The "Engineer-in-Charge or Site-in-Charge" shall mean the person appointed or designated as such by the Owner and shall include those who are expressly authorised by the owner to act for and on its behalf.
- 2.10 "The Owner" means the HINDUSTAN PETROLEUM CORPORATION LIMITED incorporated in India having its Registered office at PETROLEUM HOUSE, 17, JAMSHEDJI TATA ROAD, BOMBAY 400020 and Marketing office at the address mentioned for this purpose in the tender header or their successors or assignees.
- 2.11 The "**Permanent Work**" means and includes works which form a part of the work to be handed over to the Owner by the Contractor on completion of the contract.
- 2.12 The "Project Manager" shall mean the Project Manager of HINDUSTAN PETROLEUM CORPORATION LIMITED, or any person so appointed, nominated or designated.
- 2.13 The "**Site**" means the land on which the work is to be executed or carried out and such other place(s) for purpose of performing the Contract.
- 2.14 The "Specifications" shall mean the various technical and other specifications attached and referred to in the tender documents. It shall also include the latest editions, including all addenda/corrigenda or relevant Indian Standard Specifications and Bureau Of Indian Standards.
- 2.15 The "Sub-Contractor" means any person or firm or Company (other than the Contractor) to whom any part of the work has been entrusted by the Contractor with the prior written consent of the Owner/Engineer-in-Charge/Site-in- Charge and their legal heirs, representatives, successors and permitted assignees of such person, firm or Company.
- 2.16 The "Temporary Work" means and includes all such works which are a part of the contract for execution of the permanent work but does not form part of the permanent work confirming to practices, procedures applicable rules and regulations relevant in that behalf.
- 2.17 The "Tender" means the document submitted by a person or authority for carrying out the work and the Tenderer means a person or authority who submits the tender offering to carry out the work as per the terms and conditions.
- 2.18 The "Work" shall mean the works to be executed in accordance with the Contract or part thereof as the case may be and shall include extra, additional, altered or substituted works as maybe required for the purposes of completion of the work contemplated under the Contract.

3. SUBMISSION OF TENDER

3.1 Before submitting the Tender, the Tenderer shall at their own cost and expenses visit the site, examine and satisfy as to the nature of the existing roads, means of communications, the character of the soil, state of land and of the excavations, the correct dimensions of the work facilities for procuring various construction and other material and their availability, and shall obtain information on all matters and conditions as they may feel necessary for the execution of the works as intended by the Owners and shall also satisfy of the availability of suitable water for construction of civil works and for drinking purpose and power required for fabrication work etc. Tenderer, whose tender may be accepted



and with whom the Contract is entered into shall not be eligible and be able to make any claim on any of the said counts in what so ever manner for what so ever reasons at any point of time and such a claim shall not be raised as a dispute and shall not be arbitrable.

A pre-bid meeting may be held as per the schedule mentioned in the tender.

- 3.2 The Tenderer shall be deemed to have satisfied fully before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the schedule of quantities which rates and prices shall except as otherwise provided cover all his obligations under the contract.
- 3.3 It must be clearly understood that the whole of the conditions and specifications are intended to be strictly enforced and that no work will be considered as extra work and allowed and paid for unless they are clearly outside the scope, spirit, meaning of the Contract and intent of the Owner and have been so ordered in writing by Owner and/or Engineer-in-Charge/Site-in-Charge, whose decision shall be final and binding.
- 3.4 Before filling the Tender the Contractor will check and satisfy all drawings and materials to be procured and the schedule of quantities by obtaining clarification from the Owner on all the items as may be desired by the Tenderer. No claim for any alleged loss or compensation will be entertained on this account, after submission of Tender by the Tenderer/Contractor and such a claim shall not be arbitrable.
- 3.5 Unless specifically provided for in the tender documents or any Special Conditions, no escalation in the Tender rates or prices quoted will be permitted throughout the period of contract or the period of actual completion of the job whichever is later on account of any variation in prices of materials or cost of labour or due to any other reasons. Claims on account of escalation shall not be arbitrable.
- 3.6 The quantities indicated in the Tender are approximate. The approved schedule of rates of the contract will be applicable for variations upto plus or minus 25% of the contract value. No revision of schedule of rates will be permitted for such variations in the contract value, including variations of individual quantities, addition of new items, alterations, additions/deletions or substitutions of items, as mentioned above. Quantities etc. mentioned and accepted in the joint measurement sheets shall alone be final and binding on the parties.
- 3.7 Owner reserve their right to award the contract to any tenderer and their decision in this regard shall be final. They also reserve their right to reject any or all tenders received. No disputes could be raised by any tenderer(s) whose tender has been rejected.
- 3.8 The Rates quoted by the Tenderer shall include Costs and expenses on all counts viz. cost of materials, transportation of machine(s), tools, equipments, labour, power, Administration charges, price escalations, profits, etc. except to the extent of the cost of material(s), if any, agreed to be supplied by Owner and mentioned specifically in that regard in condition of Contract, in which case, the cost of such material if taken for preparation of the Contractor's Bill(s) shall be deducted before making payment of the Bill(s) of the Contractor. The description given in the schedule of quantities shall unless otherwise stated be held to include wastage on materials, carriage and cartage, carrying in and return of empties, hoisting,



- setting, fitting and fixing in position and all other expenses necessary in and for the full and complete execution and completion of works and in accordance with good practice and recognised principles in that regard.
- 3.9 Employees of the State and Central Govt. and employees of the Public Sector Undertakings, including retired employees are covered under their respective service conditions/rules in regard to their submitting the tender. All such persons should ensure compliance to the respective/applicable conditions, rules etc. Any person not complying with those rules etc. but submitting the tender in violation of such rules, after being so noticed shall be liable for the forfeiture of the Earnest Money Deposit made with the tender, termination of Contract and sufferance on account of forfeiture of Security Deposit and sufferance of damages arising as a result of termination of Contract.
- 3.10 In consideration for having a chance to be considered for entering into a contract with the Owner, the Tenderer agrees that the Tender submitted by him shall remain valid for the period prescribed in the tender conditions, from the date of opening of the tender. The Tenderer shall not be entitled during the said validity period, to revoke or cancel the tender without the consent in writing from the Owner.

In case the tenderer revokes or cancels the tender or varies any of terms of the tender without the Consent of the Owner, in writing, the Tenderer forfeits the right to the refund of the Earnest Money paid along with the tender.

- 3.11 The prices quoted by the Tenderer shall be firm during the validity period of the bid and Tenderer agrees to keep the bid alive and valid during the said period. The Tenderers shall particularly take note of this factor before submitting their tender(s).
- 3.12 The works shall be carried out strictly as per approved specifications. Deviations, if any, shall have to be authorised by the Engineer-in-Charge/Site-in-Charge in writing prior to implementing deviations. The price benefit, if any, arising out of the accepted deviation shall be passed on to the Owner. The decision of Engineer- in-Charge shall be final in this matter.
- 3.13 The contractor shall make all arrangements at his own cost to transport the required materials outside and inside the working places and leaving the premises in a neat and tidy condition after completion of the job to the satisfaction of Owner. All materials except those agreed to be supplied by the Owner shall be supplied by the contractor at his own cost and the rates quoted by the Contractor should be inclusive of all royalties, rents, taxes, duties, statutory levies, if any, etc.
- 3.14 The Contractor shall not carry on any work other than the work under this Contract within the Owner's premises without prior permission in writing from the Engineer- in-Charge/Site-in-charge.
- 3.15 The Contractor shall be bound to follow and ensure compliance to all the safety and security regulations and other statutory rules applicable to the area. In the event of any damage or loss or sufference caused due to non-observance of such rules and regulations, the contractor shall be solely responsible for the same and shall keep the Owner indemnified against all such losses and claims arising from the same.

right to split the work under this

without assigning any reasons.

contract between two or more contractors



- 3.16 At any time after acceptance of tender, the Owner reserves the right to add, amend or delete any work item, the bill of quantities at a later date or reduce the scope of work in the overall interest of the work by prior discussion and intimation to the Contractor. The decision of Owner, with reasons recorded therefor, shall be final and binding on both the Owner and the Contractor. The Contractor shall not have right to claim compensation or damage etc. in that regard. The Owner reserves the
- 3.17 Contractor shall not be entitled to sublet, sub contract or assign, the work under this Contract without the prior consent of the Owner obtained in writing.
- 3.18 All signatures in tender document shall be dated as well as all the pages of all sections of the tender documents shall be initialed at the lower position and signed, wherever required in the tender papers by the Tenderer or by a person holding Power of Attorney authorising him to sign on behalf of the tenderer before submission of tender.
- 3.19 The tender should be quoted in English, both in figures as well as in words. The rates and amounts tendered by the Tenderer in the Schedule of rates for each item and in such a way that insertion is not possible. The total tendered amount should also be indicated both in figures and words with the signature of tenderer.

If some discrepancies are found between the rates given in words and figures of the amount shown in the tender, the following procedure shall be applied:

- (a) When there is a difference between the rates in figures and words, the rate which corresponds to the amount worked out by the tenderer shall be taken as correct.
- (b) When the rate quoted by the tenderer in figures and words tallies but the amount is incorrect, the rate quoted by the tenderer shall be taken as correct.
- (c) When it is not possible to ascertain the correct rate in the manner prescribed above the rate as quoted in words shall be adopted.
- 3.20 All corrections and alterations in the entries of tender paper will be signed in full by the tenderer with date. No erasures or over writings are permissible.
- 3.21 Transfer of tender document by one intending tenderer to the another one is not permissible. The tenderer on whose name the tender has been sent only can quote.
- 3.22 The Tender submitted by a tenderer if found to be incomplete in any or all manner is liable to be rejected. The decision of the Owner in this regard is final and binding.

4. DEPOSITS

®

a) EARNEST MONEY DEPOSIT (EMD)

The tenderer will be required to pay a sum as specified in the covering letter, as earnest money deposit along with the tender either thru a crossed demand draft or a non-revokable Bank Guarantee in favour of Hindustan Petroleum Corporation Limited, from a bank from the list of banks whose bank guarantees are acceptable to the Corporation (list enclosed) payable at Mumbai in favour of Hindustan Petroleum Corporation Limited, Mumbai in the proforma enclosed.

® REVISION: PROC-045



or through e-payment. The earnest money deposit will be refunded after finalisation of the contract.

Note: Public sector enterprises and small-scale units registered with National Small Industries Corporation are exempted from payment of Earnest Money Deposit. Small scale units registered with National Small Industries Corporation should enclose a photocopy of their registration certificate with their quotation to make their quotation eligible for consideration. The Registration Certificate should remain valid during the period of the contract that may be entered into with such successful bidder. Such tenderers should ensure validity of the Registration Certificate for the purpose. (Refer Gazette notification of the Government of India, the Ministry of Micro, Small and Medium Enterprises number S.O.2119 (E), dated 26th June, 2020 on criteria for classifying the enterprises as micro, small and medium enterprises & Udyam registration for revised guideline.)

b) **SECURITY DEPOSIT:**

The tenderer, with whom the contract is decided to be entered into and intimation is so given will have to make a security deposit of <u>one percent (1%)</u> of the total contract value in the form of account payee crossed demand draft drawn in favour of the Owner, within 15 days from the date of intimation of acceptance of their tender, failing which the Owner reserves the right to cancel the Contract and forfeit the EMD.

1% of PO/Contract value as Security deposit will be acceptable in the form of Demand draft or through e-payment upto r 50,000/- and in the form of Demand draft / Bank guarantee or through e-payment beyond r 50,000/-.

Composite Performance Bank Guarantee (CPBG) valid upto a period of 3 months beyond the expiry of defect liability period. Demand Draft should be drawn on Scheduled Banks, other than co-operative bank.

Quantum of Performance Bank Guarantee inclusive of Security Deposit should be as follows:

- All items (other than CVR items): 10% of PO value
- For CVR items: r 10.0 lakhs or 5% of the order value whichever is lower. Composite PBG of above value towards Performance Bank Guarantee inclusive of Security Deposit shall be accepted (in lieu of deduction of retention money of 10% from each bill); Such composite PBG shall be valid upto a period of 3 months beyond the expiry of defect liability period. Demand Draft should be drawn on Scheduled Banks (other than cooperative banks).

5. EXECUTION OF WORK

All the works shall be executed in strict conformity with the provisions of the contract documents and with such explanatory details, drawings, specifications and instructions as may be furnished from time to time to the Contractor by the Engineer-in-Charge/ Site-in-Charge, whether mentioned in the Contract or not. The Contractor shall be responsible for ensuring that works throughout are executed in the most proper and workman-like manner with the quality of material and workmanship in strict accordance with the specifications and to the entire satisfaction of the Engineer-in-Charge/Site-in-Charge.

The completion of work may entail working in monsoon also. The contractor must maintain the necessary work force as may be required during monsoon and plan to execute the job in such a way the entire project is completed within the contracted time schedule. No extra charges shall be payable for such work during monsoon. It shall be the responsibility of the contractor to keep the construction work site free from water during and off the monsoon period at his own cost and expenses.

For working on Sundays/Holidays, the contractor shall obtain the necessary permission from Engineer Incharge/Site Incharge in advance. The contractor shall be permitted to work beyond the normal hours with prior approval of Engineer-In-Charge/Site-In-Charge and the contractors quoted rate is inclusive of all such extended hours of working and no extra amount shall be payable by the owner on this account.

® REVISION: PROC-041/01.07.2020



5.a. SETTING OUT OF WORKS AND SITE INSTRUCTIONS

- 5.a.1. The Engineer-in-Charge/Site-in-Charge shall furnish the Contractor with only the four corners of the work site and a level bench mark and the Contractor shall set out the works and shall provide an efficient staff for the purpose and shall be solely responsible for the accuracy of such setting out.
- 5.a.2. The Contractor shall provide, fix and be responsible for the maintenance of all necessary stakes, templates, level marks, profiles and other similar things and shall take all necessary precautions to prevent their removal or disturbance and shall be responsible for consequences of such removal or disturbance should the same take place and for their efficient and timely reinstatement. The Contractor shall also be responsible for the maintenance of all existing survey marks, either existing or supplied and fixed by the Contractor. The work shall be set out to the satisfaction of the Engineer-in-Charge/Site-in-Charge. The approval thereof or joining in setting out the work shall not relieve the Contractor of his responsibility.
- 5.a.3. Before beginning the works, the Contractor shall, at his own cost, provide all necessary reference and level posts, pegs, bamboos, flags ranging rods, strings and other materials for proper layout of the work in accordance with the scheme, for bearing marks acceptable to the Engineer-in-Charge/Site-in-Charge. The Centre longitudinal or face lines and cross lines shall be marked by means of small masonary pillars. Each pillar shall have distinct marks at the centre to enable theodolite to be set over it. No work shall be started until all and approved by the Engineer-in-Charge/Site-inthese points are checked Charge in writing. But such approval shall not relieve the contractor of any of his responsibilities. The Contractor shall also provide all labour, materials and other facilities, as necessary, for the proper checking of layout and inspection of the points during construction.
- 5.a.4. Pillars bearing geodetic marks located at the sites of units of works under construction should be protected and fenced by the Contractor.
- 5.a.5. On completion of works, the contractor shall submit the geodetic documents according to which the work was carried out.
- 5.a.6. The Engineer-in-Charge/Site-in-Charge shall communicate or confirm his instructions to the contractor in respect of the executions of work in a "work site order book" maintained in the office having duplicate sheet and the authorised representative of the contractor shall confirm receipt of such instructions by signing the relevant entries in the book.
- 5.a.7. All instructions issued by the Engineer-in-Charge/Site-in-Charge shall be in writing. The Contractor shall be liable to carry out the instructions without fail.
- 5.a.8. If the Contractor after receipt of written instruction from the Engineer-in-Charge/ Site-in-Charge requiring compliance within seven days fails to comply with such drawings or 'instructions' or both as the Engineer-in-Charge/Site-in-Charge may issue, owner may employ and pay other persons to execute any such work whatsoever that may be necessary to give effect to such drawings or 'instructions' and all cost and expenses incurred in connection therewith as certified by the Engineer-in-Charge/ Site-in-Charge shall be borne by the contractor or may be deducted from amounts due or that may become due to the contractor under the contract or may be recovered as a debt.



- 5.a.9. The Contractor shall be entirely and exclusively responsible for the horizontal and vertical alignment, the levels and correctness of every part of the work and shall rectify effectually any errors or imperfections therein. Such rectifications shall be carried out by the Contractor, at his own cost.
- 5.a.10. In case any doubts arise in the mind of the Contractor in regard to any expressions, interpretations, statements, calculations of quantities, supply of material rates, etc. the contractor shall refer the same to the Site-in-Charge/Engineer-in-Charge for his clarification, instructions, guidance or clearing of doubts. The decision of the Engineer-in-Charge/Site-in-Charge shall be final and the contractor shall be bound by such a decision.
- 5.a.11."The Contractor shall take adequate precautions, to ensure that his operations do not create nuisance or misuse of the work space that shall cause unnecessary disturbance or inconvenience to others at the work site".
- 5.a.12. "All fossils, coins articles of value of antiquity and structure or other remains of geological or archaeological discovered on the site of works shall be declared to be the property of the Owner and Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing or damaging any such articles or thing and shall immediately inform the Owner/ Engineer-in-Charge/Site-in-Charge."
- 5.a.13. "Contractor will be entirely and exclusively responsible to provide and maintain at his expenses all lights, guards, fencing, etc. when and where even necessary or/as required by the Engineer-in-Charge/Site-in-Charge for the protection of works or safety and convenience to all the members employed at the site or general public."

5.b. COMMENCEMENT OF WORK

The contractor shall after paying the requisite security deposit, commence work within 15 days from the date of receipt of the intimation of intent from the Owner informing that the contract is being awarded. The date of intimation shall be the date/day for counting the starting day/date and the ending day/date will be accordingly calculated. Penalty, if any, for the delay in execution shall be calculated accordingly.

Contractor should prepare detailed fortnightly construction programme for approval by the Engineer-in-Charge within one month of receipt of Letter Of Intent. The work shall be executed strictly as per such time schedule. The period of Contract includes the time required for testing, rectifications, if any, re-testing and completion of work in all respects to the entire satisfaction of the Engineer-in-Charge.

A Letter of Intent is an acceptance of offer by the Owner and it need not be accepted by the contractor. But the contractor should acknowledge a receipt of the purchase order within 15 days of mailing of Purchase Order and any delay in acknowledging the receipt will be a breach of contract and compensation for the loss caused by such breach will be recovered by the Owner by forfeiting earnest money deposit/bid bond.

5.c. SUBLETTING OF WORK

5.c.1. No part of the contract nor any share or interest thereof shall in any manner or degree be transferred, assigned or sublet, by the Contractor, directly or indirectly to any firm or corporation whatsoever, without the prior consent in writing of the Owner.



- 5.c.2. At the commencement of every month the Contractor shall furnish to the Engineer-in-charge/Site-in-Charge list of all sub-contractors or other persons or firms engaged by the Contractor.
- 5.c.3 The contract agreement will specify major items of supply or services for which the Contractor proposes to engage sub-Contractor/sub-Vendor. The contractor may from time to time propose any addition or deletion from any such list and will submit the proposals in this regard to the Engineer-in-charge/Designated officer-in-charge for approval well in advance so as not to impede the progress of work. Such approval of the Engineer-in-charge/Designated officer-in-charge will not relieve the contractor from any of his obligations, duties and responsibilities under the contract.
- 5.c.4. Notwithstanding any sub-letting with such approval as resaid and notwithstanding that the Engineer-in-Charge shall have received copies of any sub-contract, the Contractor shall be and shall remain solely to be responsible for the quality and proper and expeditious execution of the works and the performance of all the conditions of the contract in all respects as if such subletting or sub-contracting had not taken place and as if such work had been done directly by the Contractor.
- 5.c.5 Prior approval in writing of the Owner shall be obtained before any change is made in the constitution of the contractor/Contracting agency otherwise contract shall be deemed to have been allotted in contravention of clause entitled "sub-letting of works" and the same action may be taken and the same consequence shall ensue as provided in the clause of "sub- letting of works".

5.d EXTENSION OF TIME

- 1) If the Contractor anticipates that he will not be able to complete the work within the contractual delivery/ completion date (CDD), then the Contractor shall make a request for grant of time extension clearly specifying the reasons for which he seeks extension of time and demonstrating as to how these reasons were beyond the control of the contractor or attributable to the Owner. This request should be made well before the expiry of the Contractual Delivery/ Completion Date (CDD).
- 2) If such a request for extension is received with a Bank Guarantee for the full Price Reduction amount calculated on the Total Contract Value, the concerned CGM of the Owner shall grant a Provisional extension of time, pending a decision on the request.
- 3) The concerned CGM of the Owner shall expeditiously decide upon the request for time extension and decide the levy of price reduction within a maximum period of 6 months from the CDD or date of receipt of the request, whichever is earlier.
- 4) Grant of any extension of time shall be by means of issuance of a Change Order.
- 5) In order to avoid any cash crunch to the Contractor, a Bank Guarantee could be accepted against Price Reduction, as stated above. Once a decision is taken, the Price Reduction shall be recovered from any pending bills or by encashment of the BG. Any balance sum of Contractor or the BG (if Price Reduction is fully recovered from the bills) shall be promptly refunded/returned to the Contractor.



5.e. SUSPENSION OF WORKS

- 5.e.1. Subject to the provisions of this contract, the contractor shall if ordered in writing by the Engineer- in-Charge/Site-in-Charge for reasons recorded suspend the works or any part thereof for such period and such time so ordered and shall not, after receiving such, proceed with the work therein ordered to suspended until he shall have received a written order to re-start. The Contractor shall be entitled to claim extension of time for that period of time the work was ordered to be suspended. Neither the Owner nor the Contractor shall be entitled to claim compensation or damages on account of such an extension of time.
- 5.e.2. In case of suspension of entire work, ordered in writing by Engineer-in-Charge/Site-in-Charge, for a period of 30 days, the Owner shall have the option to terminate the Contract as provided under the clause fortermination. The Contractor shall not be at liberty to remove from the site of the works any plant or materials belonging to him and the Employer shall have lien upon all such plant and materials.
- 5.e.3. The contractor shall, in case of suspension have the right to raise a dispute and have the same arbitrated but however, shall not have the right to have the work stopped from further progress and completion either by the owner or through other contractor appointed by the owner.

5.f. OWNER MAY DO PART OF WORK

Not withstanding anything contained elsewhere in this contract, the owner upon failure of the Contractor to comply with any instructions given in accordance with the provisions of this contract, may instead of Contract and undertaking charge of entire work, place additional labour force, tools, equipment and materials on such parts of the work, as the Owner may decide or engage another Contractor to carryout the balance of work. In such cases, the Owner shall have the right to deduct from the amounts payable to the Contractor the difference in cost of such work and materials with ten percent overhead added to cover all departmental charges. Should the total amount thereof exceed the amount due to the contractor, the Contractor shall pay the difference to the Owner within 15 days of making demand for payment failing which the Contractor shall be liable to pay interest at 24% p.a. on such amounts till the date of payment.

5.g. INSPECTION OF WORKS

5.g.1. The Engineer-in-Charge/Site-in-Charge and Officers from Central Government will have full power and authority to inspect the works at any time in progress, either on the site or at the Contractor's premises/workshops of any person, firm or corporation where work in connection with the contract may be in hand or where the materials are being or are to be supplied, and the Contractor shall afford or procure for Charge/Site-in-Charge every facility and assistance to carryout such inspection. The Contractor shall, at all times during the usual working hours and at all other times at which reasonable notice of the intention of the Engineer-in-Charge/Site-in-Charge or his representative to visit the works shall have been given to the Contractor, either himself be present to receive orders and instructions, have a responsible agent, duly accredited in writing, present for the purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the Contractor himself. The Contractor shall give not



less than seven days notice in writing to the Engineer-in-Charge/Site-in-Charge before covering up or otherwise placing beyond reach of inspection and measurement any work in order that the same may be inspected and measured. In the event of breach of above, the same shall be uncovered at Contractor's expense for carrying out such measurement and/or inspection.

5.g.2. No material shall be removed and despatched by the Contractor from the site without the prior approval in writing of the Engineer-in-charge. The contractor is to provide at all times during the progress of the work and the maintenance period proper means of access with ladders, gangways, etc. and the necessary attendance to move and adapt as directed for inspection or measurements of the works by the Engineer-in-Charge/Site-in-Charge.

5.h. SAMPLES

- 5.h.1. The contractor shall furnish to the Engineer-in-charge/Site-in-Charge for approval when requested or required adequate samples of all materials and finishes to be used in the work.
- 5.h.2. Samples shall be furnished by the Contractor sufficiently in advance and before commencement of the work so as the Owner can carry out tests and examinations thereof and approve or reject the samples for use in the works. All material samples furnished and finally used/applied in actual work shall fully be of the same quality of the approved samples.

5.i. TESTS FOR QUALITY OF WORK

- 5.i.1. All workmanship shall be of the respective kinds described in the contract documents and in accordance with the instructions of the Engineer-in-Charge / Site-in- Charge and shall be subjected from time to time to such tests at Contractor's cost as the Engineer-in-Charge/Site-in-Charge may direct at the place of manufacture or fabrication or on the site or at all or any such places. The Contractor shall provide assistance, instruments, labour and materials as are normally required for examining, measuring and testing any workmanship as may be selected and required by the Engineer-in-Charge/Site-in-Charge.
- 5.i.2. All the tests that will be necessary in connection with the execution of the work as decided by the Engineer-in-charge/Site-in-Charge shall be carried out at the contractors cost and expenses.
- 5.i.3. If any tests are required to be carried out in connection with the work or materials or workmanship to be supplied by the owner, such tests shall be carried out by the Contractor as per instructions of Engineer-in-Charge/Site-in-Charge and expenses for such tests, if any, incurred by the contractor shall be reimbursed by the Owner. The contractor should file his claim with the owner within 15 (fifteen) days of inspection/test and any claim made beyond that period shall lapse and be not payable.

5.j. ALTERATIONS AND ADDITIONS TO SPECIFICATIONS, DESIGNS AND WORKS

5.j.1. The Engineer-in-Charge/Site-in-Charge shall have powers to make any alterations, additions and/or substitutions to the schedule of quantities, the original



specifications, drawings, designs and instructions that may become necessary or advisable or during the progress of the work and the Contractor shall be bound to carryout such altered/extra/new items of work in accordance with instructions which may be given to him in writing signed by the Engineer-in-Charge/Site- in-Charge. Such alterations, omissions, additions or substitutions shall not invalidate the contract. The altered, additional or substituted work which the Contractor may be directed to carryon in the manner as part of the work shall be carried out by the Contractor on the same conditions in all respects on which he has agreed to do the work. The time for completion of such altered added and/or substituted work may be extended for that part of the particular job. The rates for such additional altered or substituted work under this Clause shall, be worked out in accordance with the following provisions:

- 5.j.2. If the rates for the additional, altered or substituted work are specified in the contract for similar class of work, the Contractor is bound to carryout the additional, altered or substituted work at the same rates as are specified in the contract.
- 5.j.3. If the rates for the additional, altered or substituted work are not specifically provided in the contract for the work, the rates will be derived from the rates for similar class of work as are specified in the contract for the work. In the opinion of the Engineer-in- Charge/Site-in-Charge as to whether or not the rates can be reasonably so derived from the items in this contract, will be final and binding on the Contractor.
- 5.j.4. If the rates for the altered, additional or substituted work cannot be determined in the manner specified above, then the Contractor shall, within seven days of the date of receipt of order to carry out the work, inform the Engineer-in-Charge/ Site-in-Charge of the rate at which he intends to charge for such class of work, supported by analysis of the rate or rates claimed and the Engineer-In-Charge/ Site-in-Charge shall determine the rates on the basis of the prevailing market rates for both material and labour plus 10% to cover overhead and profit of labour rates and pay the Contractor accordingly. The opinion of the Engineer-in-Charge/Site-in-Charge as to current market rates of materials and the quantum of labour involved per unit of measurement will be final and binding on contractor.
- 5.j.5. In case of any item of work for which there is no specification supplied by the Owner and is mentioned in the tender documents, such work shall be carried out in accordance with Indian Standard Specifications and if the Indian Standard Specifications do not cover the same, the work should be carried out as per standard Engineering Practice subject to the approval of the Engineer-in-Charge/ Site-in-Charge.

5.k. PROVISIONAL ACCEPTANCE

Acceptance of sections of the works for purposes of equipment erection, piping, electrical work and similar usages by the Owner and payment for such work or parts of work shall not constitute a waiver of any portion of this contract and shall not be construed so as to prevent the Engineer from requiring replacement of defective work that may become apparent after the said acceptance and also shall not absolve the Contractor of the obligations under this contract. It is made clear that such an acceptance does not indicate or denote or establish to the fact of execution of that work or the Contract until the work is completed in full in accordance with the provisions of this Contract.



5.I. COMPLETION OF WORK AND COMPLETION CERTIFICATE

As soon as the work is completed in all respects, the contractor shall give notice of such completion to the site in charge or the Owner and within thirty days of receipt of such notice the site in charge shall inspect the work and shall furnish the contractor with a certificate of completion indicating:

- a) defects, if any, to be rectified by the contractor
- b) items, if any, for which payment shall be made in reduced rates
- c) the date of completion.

5.m. USE OF MATERIALS AND RETURN OF SURPLUS MATERIALS

- 5.m.1. Notwithstanding anything contained to the contrary in any or all of the clauses of this contract, where any materials for the execution of the contract are procured with the assistance of Government either by issue from Government stocks or procurement made under orders or permits or licences issued by Government, the contractor shall use the said materials economically and solely for the purpose of the contract and shall not dispose them of without the permission of the Owner.
- 5.m.2. All surplus(serviceable) or unserviceable materials that may be left over after the completion of the contract or at its termination for any reason whatsoever, the Contractor shall deliver the said product to the Owner without any demur. The price to be paid to the Contractor, if not already paid either in full or in part, however, shall not exceed the amount mentioned in the Schedule of Rates for such material and in cases where such rates are not so mentioned, shall not exceed the CPWD scheduled rates. In the event of breach of the aforesaid condition the contractor shall become liable for contravention of the terms of the Contract.
- 5.m.3. The surplus (serviceable) and unserviceable products shall be determined by joint measurement. In case where joint measurement has failed to take place, the Owner may measure the same and determine the quantity.
- 5.m.4. It is made clear that the Owner shall not be liable to take stock and keep possession and pay for the surplus and unserviceable stocks and the Owner may direct the Contractor to take back such material brought by the Contractor and becoming surplus and which the Owner may decide to keep and not to pay for the same.

5.n. DEFECT LIABILITY PERIOD

The contractor shall guarantee the work executed for a period of 12 months from the date of completion of the job. Any damage or defect that may arise or lie undiscovered at the time of completion of the job shall be rectified or replaced by the contractor at his own cost. The decision of the Engineer In-charge/Site-Incharge/Owner shall be the final in deciding whether the defect has to be rectified or replaced.

Equipment or spare parts replaced under warranty/guarantees shall have further warranty for a mutually agreed period from the date of acceptance.

The owner shall intimate the defects noticed in writing by a Registered A.D. letter or otherwise and the contractor within 15 days of receipt of the intimation shall start the rectification work and complete within the time specified by the owner failing which the owner will get the defects rectified by themselves or by any other contractor and the expenses incurred in getting the same done shall be paid by the Contractor under the provision of the Contract.

Thus, defect liability is applicable only in case of job/works contract (civil, mechanical, electrical, maintenance etc.) where any damage of defect may arise in future (i.e. within 12 months from the date of completion of job) or lie undiscovered at the time of completion of job.



In other words, in case of service contracts (like car hire etc.) where there is no question of damage or defect arising in future, the defect liability clause is not applicable.

® Equipment or spare parts replaced under warranty/guarantees shall have further warranty for 12 months from the date of acceptance. However, in no case will the warranty exceed 24 months from the date of start of the original warranty. (Refer Annexure 22 – Govt. Guideline Sr. No. 14)

5.o. DAMAGE TO PROPERTY

- 5.o.1. Contractor shall be responsible for making good to the satisfaction of the Owner any loss of and any damage to all structures and properties belonging to the Owner or being executed or procured by the Owner or of other agencies within the premises of the work of the Owner, if such loss or damage is due to fault and/or the negligence or willful acts or omission of the Contractor, his employees, agents, representatives or sub-contractors.
- 5.o.2. The Contractors shall indemnify and keep the Owner harmless of all claims for damage to Owner's property arising under or by reason of this contract.

® 5.p. LIMITATION OF LIABILITY

Notwithstanding anything contrary contained herein, the aggregate total liability of Seller, excluding his liability towards infringement of patent, trade mark or industrial design rights under the contract or otherwise shall be limited to 100% of value of Purchase order. However, neither party shall be liable to the other party for any indirect and consequential damages, loss of profits or loss of production. (Refer Annexure 22 – Govt. Guideline Sr. No. 13)

6. DUTIES AND RESPONSIBILITIES OF CONTRACTOR

6.a. EMPLOYMENT LIABILITY TOWARDS WORKERS EMPLOYED BY THE CONTRACTOR

- 6.a.1 The Contractor shall be solely and exclusively responsible for engaging or employing persons for the execution of work. All persons engaged by the contractor shall be on Contractor's payroll and paid by Contractor. All disputes or differences between the Contractor and his/their employees shall be settled by Contractor.
- 6.a.2. Owner has absolutely no liability whatsoever concerning the employees of the Contractor. The Contractor shall indemnify Owner against any loss or damage or liability arising out of or in the course of his/their employing persons or relation with his/their employees. The Contractor shall make regular and full payment of wages and on any complaint by any employee of the Contractor or his sub contractor regarding non-payment of wages, salaries or other dues, Owner reserves the right to make payments directly to such employees or subcontractor of the Contractor and recover the amount in full from the bills of the
- ® REVISION: PROC-021/01.07.2017



Contractor and the contractor shall not claim any compensation or reimbursement thereof. The Contractor shall comply with the Minimum Wages Act applicable to the area of work site with regard to payment of wages to his employees and also to employees of his sub contractor.

6.a.3. The Contractor shall advise in writing or in such appropriate way to all of his employees and employees of sub-contractors and any other person engaged by him that their appointment/employment is not by the Owner but by the Contractor and that their present appointment is only in connection with the construction contract with Owner and that therefore, such an employment/appointment would not enable or make them eligible for any employment/appointment with the Owner either temporarily or/and permanent basis.

6.b. NOTICE TO LOCAL BODIES

The contractor shall comply with and give all notices required under any Government authority, instruction, rule or order made under any act of parliament, state laws or any regulations or by-laws of any local authority relating to the works.

6.c. FIRST AID AND INDUSTRIAL INJURIES

- 6.c.1 Contractor shall maintain first aid facility for his employees and those of his sub-contractors.
- 6.c.2. Contractor shall make arrangements for ambulance service and for the treatment of all types of injuries. Names and telephone numbers of those providing such services shall be furnished to Owner prior to start of construction and their name board shall be prominently displayed in Contractor's field office.
- 6.c.3. All industrial injuries shall be reported promptly to owner and a copy of contractor's report covering each personal injury requiring the attention of a physician shall be furnished to the Owner.

6.d. SAFETY CODE

- 6.d.1. The Contractor shall at his own expenses arrange for the Safety provisions as may be necessary for the execution of the work or as required by the Engineer-in-Charge in respect of all labours directly or indirectly employed for performance of the works and shall provide all facilities in connections therewith. In case the contractor fails to make arrangements and provide necessary facilities as aforesaid, the Owner shall be entitled to do so and recover the cost thereof from the Contractor.
- 6.d.2. From the commencement to the completion of the works, the contractor shall take full responsibility for the care thereof and of all the temporary works (defined as meaning all temporary works of every kind required in or for the execution, completion or maintenance of the works). In case damage, loss or injury shall happen to the works or to any part thereof or to temporary works or to any cause whatsoever repair at his (Contractor's) own cost and make good the same so that at the time of completion, the works shall be in good order and condition and in conformity in every respect with the requirement of the contract and Engineer-in-Charge's instructions.



- 6.d.3. In respect of all labour, directly or indirectly employed in the work for the performance of the Contractor's part of this agreement, the contractor shall at his own expense arrange for all the safety provisions as per relevant Safety Codes of C.P.W.D Bureau of Indian Standards, the Electricity Act/I.E. Rules. The Mines Act and such other Acts as applicable.
- 6.d.4. The Contractor shall observe and abide by all fire and safety regulations of the Owner. Before starting construction work, the Contractor shall consult with Owner's Safety Engineer or Engineer-in-Charge/Site-in-Charge and must make good to the satisfaction of the Owner any loss or damage due to fire to any portion of the work done or to be done under this agreement or to any of the Owner's existing property.
- 6.d.5. The Contractor will be fully responsible for complying with all relevant provisions of the Contract Labour Act and shall pay rates of Wages and observe hours of work/conditions of employment according to the rules in force from time to time.
- 6.d.6. The Contractor will be fully responsible for complying with the provision including documentation and submission of reports on the above to the concerned authorities and shall indemnify the Corporation from any such lapse for which the Government will be taking action against them.
- 6.d.7. Owner shall on a report having been made by an inspecting Office as defined in the Contract Labour Regulations have the power to deduct from the money due to the Contractor any sum required or estimated to be required for making good the loss suffered by a worker(s) by reasons of non-fulfillment of conditions of contract for the benefit of workers no-payment of wages or of deductions made from his or their wages which are not justified by the terms of contract or non observance of the said contractor's labour Regulation.

6.e. INSURANCE AND LABOUR

Contractor shall at his own expense obtain and maintain an insurance policy with a Nationalised Insurance Company to the satisfaction of the Owner as provided hereunder.

6.e.1. EMPLOYEES STATE INSURANCE ACT

- The Contractor agrees to and does hereby accept full İ. and exclusive liability for the compliance with all obligations imposed by Employees State Insurance Act, 1948, and the Contractor further agrees to defend indemnify and hold Owner harmless from any liability or penalty which may be imposed by the Central, State or local authority by reason of any asserted violation by Contractor, or sub-contractor of the Employees' State Insurance Act, 1948 and also from all claims, suits or proceedings that may be brought against the Owner arising under, growing out of or by reason of the work provided for by this contract whether brought by employees of the Contractor, by third parties or by Central or State Government authority or any political sub-division thereof.
- ii. The Contractor agrees to file with the Employees State Insurance Corporation, the Declaration forms and all forms which may be required in respect of the Contractor's or sub-contractor's employee whose aggregate emuneration is within the specified limit and who are employed in the work provided or those covered by ESI Act under any amendment to the Act from time to time.



The Contractor shall deduct and secure the agreement of the sub-contractor to deduct the employee's contribution as per the first schedule of the Employee's State Insurance Act from wages and affix the employee's contribution cards at wages payment intervals. The Contractor shall remit and secure the agreement of the sub contractor to remit to the State Bank of India, Employee's State Insurance Corporation Account, the Employee's contribution as required by the Act.

- ii. The Contractor agrees to maintain all records as required under the Act in respect of employees and payments and the Contractor shall secure the agreement of the sub contractor to maintain such records. Any expenses incurred for the contributions, making contribution or maintaining records shall be to the Contractor's or sub-contractor's account.
- iv. The Owner shall retain such sum as may be necessary from the total contract value until the Contractor shall furnish satisfactory proof that all contributions as required by the Employees State Insurance Act, 1948, have been paid.

v. WORKMAN'S COMPENSATION AND EMPLOYEE'S LIABILITY INSURANCE

Provide Insurance for all the Contractor's employees engaged in the performance of this contract. If any of the work is sublet, the Contractor shall ensure that the sub-contractor provides workmen's compensation and Employer's Liability Insurance for the latter's employees who are not covered under the Contractor's insurance.

vi. AUTOMOBILE LIABILITY INSURANCE

Contractor shall take out an Insurance to cover all risks to Owner for each of his vehicles plying on works of this contract and these insurances shall be valid for the total contract period. No extra payment will be made for this insurance. Owner shall not be liable for any damage or loss not made good by the Insurance Company, should such damage or loss result from unauthorised use of the vehicle. The provisions of the Motor Vehicle Act would apply.

vii. FIRE INSURANCE

Contractor shall within two weeks after award of contract insure the Works, Plant and Equipment and keep them insured until the final completion of the Contract against loss or damage by accident, fire or any other cause with an insurance company to be approved by the Employer/Consultant in the joint names of the Employer and the Contractor (name of the former being placed first in the Policy). Such Policy shall cover the property of the Employer only.

6.e.2. ANY OTHER INSURANCE REQUIRED UNDER LAW OR REGULATION OR BY

i. Contractor shall also provide and maintain any and all other insurance which may be required under any law or regulations from time to time. He shall also carry and maintain any other insurance which may be required by the Owner.



- ii. The aforesaid insurance policy/policies shall provide that they shall not be cancelled till the Engineer-in-Charge has agreed to their cancellation.
- iii. The Contractor shall satisfy to the Engineer-in-Charge/Site-in-Charge from time to time that he has taken out all insurance policies referred to above and has paid the necessary premium for keeping the policies alive till the expiry of the defects liability period.
- iv. The contractor shall ensure that similar insurance policies are taken out by his sub-contractor (if any) and shall be responsible for any claims or losses to the Owner resulting from their failure to obtain adequate insurance protections in connection thereof. The contractor shall produce or cause to be proceed by his sub-contractor (if any) as the case may be, the relevant policy or policies and premium receipts as and when required by the Engineer-in-Charge/Site-in-Charge.
- v. Contractor shall at his own expense cover all the workmen engaged under him under "Pradhan Mantri Surksha Bima Yojana (PMSBY)" and submit proof of the same to HPCL.

6.e.3. LABOUR AND LABOUR LAWS

- i. The contractor shall at his own cost employ persons during the period of contract and the persons so appointed shall not be construed under any circumstances to be in the employment of the Owner.
- ii. All payments shall be made by the contractor to the labour employed by him in accordance with the various rules and regulations stated above. The contractor shall keep the Owner indemnified from any claims whatsoever inclusive of damages/costs or otherwise arising from injuries or alleged injuries to or death of a person employed by the contractor or damages or alleged damages to the property.
- iii. No labour below the age of eighteen years shall be employed on the work. The Contractor shall not pay less than what is provided under the provisions of the contract labour (Regulations and Abolition) Act, 1970 and the rules made thereunder and as may be amended from time to time. He shall pay the required deposit under the Act appropriate to the number of workman to be employed by him or through sub contractor and get himself registered under the Act. He shall produce the required Certificates to the Owner before commencement of the work. The Owner recognises only the Contractor and not his sub contractor under the provisions of the Act. The Contractor will have to submit daily a list of his workforce. He will also keep the wage register at the work site or/and produce the same to the Owner, whenever desired. A deposit may be taken by the Owner Contractor to be refunded only after the Owner is satisfied that all workmen employed by the Contractor have been fully paid for the period of work in Owner's premises at rates equal to or better than wages provided for under the Minimum Wages Act. The contractor shall be responsible and complaints that may arise in this regard and the liable for any consequences thereto.
- ® REVISION: PROC-009/07.03.2016



- iv. The Contractor will comply with the provisions of the Employee's Provident Fund Act and the Family Pension Act as may be applicable and as amended from time to time.
- v. The Contractor will comply with the provisions of the payment of Gratuity Act, 1972, as may be applicable and as amended from time to time.

vi. IMPLEMENTATION OF APPRENTICES ACT, 1961

The Contractor shall comply with the provisions of the Apprentices Act, 1961 and the Rules and Orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and the Engineer-in-Charge may, at his discretion, cancel the contract. The Contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provision of the Act.

vii. MODEL RULES FOR LABOUR WELFARE

The Contractor shall at his own expenses comply with or cause be complied with Model rules for Labour Welfare as appended to those conditions or rules framed by the Government from time to time for the protection of health and for making sanitary arrangements for worker employed directly or indirectly on the works. In case the contractor fails to make arrangements as aforesaid the Engineer-in-Charge/Site-in-Charge shall be entitled to do so and recover the cost thereof from the contractor.

6.f. DOCUMENTS CONCERNING WORKS

- 6.f.1. All documents including drawings, blue prints, tracings, reproducible models, plans, specifications and copies, thereof furnished by the Owner as well as all drawings, tracings, reproducibles, plans, specifications design calculations etc. prepared by the contractor for the purpose of execution of works covered in or connected with this contract shall be the property of the Owner and shall not be used by the contractor for any other work but are to be delivered to the Owner at the completion or otherwise of the contract.
- 6.f.2. The Contractor shall keep and maintain secrecy of the documents, drawings etc. issued to him for the execution of this contract and restrict access to such documents, drawings etc. and further the Contractor shall execute a SECRECY agreement from each or any person employed by the Contractor having access to such documents, drawings etc. The Contractor shall not issue drawings and documents to any other agency or individual without the written approval by the Engineer-in-Charge/Site-in- Charge.
- 6.f.3. Contractor will not give any information or document etc. concerning details of the work to the press or a news disseminating agency without prior written approval from Engineer-in-charge/Site-in-Charge. Contractor shall not take any pictures on site without written approval of Engineer-in-Charge/Site-in-Charge.



7. PAYMENT OF CONTRACTOR'S BILLS

- 7.1. Payments will be made against Running Accounts bills certified by the Owner's Engineer-in-Charge/Site-in-Charge within 15 days from the date of receipt of the bill..
- 7.2. Running Account Bills and the final bill shall be submitted by the Contractor together with the duly signed measurements sheet(s) to the Engineer-in-Charge/ Site-in-Charge of the Owner in quadruplicate for certification.

The Bills shall also be accompanied by quantity calculations in support of the quantities contained in the bill along with cement consumption statement, actual/theoretical, wherever applicable duly certified by the Engineer-in-Charge/ Site-in-Charge of the Owner.

- 7.3. All running account payments shall be regarded as on account payment(s) to be finally adjusted against the final bill payment. Payment of Running Account Bill(s) shall not determine or affect in any way the rights of the Owner under this Contract to make the final adjustments of the quantities of material, measurements of work and adjustments of amounts etc. in the final bill.
- 7.4. The final bill shall be submitted by the Contractor within one month of the date of completion of the work fully and completely in all respects. If the Contractor fails to submit the final bill accordingly Engineer-in-Charge/Site-in-Charge may make the measurement and determine the total amount payable for the work carried out by the Contractor and such a certification shall be final and binding on the Contractor. The Owner/Engineer- in-Charge/Site-in-Charge may take the assistance of an outside party for taking the measurement, the expenses of which shall be payable by the Contractor.
- 7.5. Payment of final bill shall be made within 30 days from the date of receipt of the certified bill by the Disbursement Section of the owner.
- 7.6 Wherever possible, payment shall be tendered to the contractor in electronic mode (e-payment) through any of the designated banks. The contractor will comply by furnishing full particulars of Bank acount (mandate) to which the payments will be routed. Owner reserves the right to make payment in any alternate mode also.

7.a. MEASUREMENT OF WORKS

- 7.a.1. All measurements shall be in metric system. All the works will be jointly measured by the representative of the Engineer-in-Charge/Site-in-Charge and the Contractor or their authorised agent progressively. Such measurement will be recorded in the Measurement Book/Measurement Sheet by the Contractor or his authorised representative and signed in token of acceptance by the Owner or their authorised representative.
- 7.a.2. For the purpose of taking joint measurement, the Contractor/representative shall be bound to be present whenever required by the Engineer-in-Charge/Sitein-Charge.
 - If, however, they are absent for any reasons whatsoever, the measurement will be taken by the Engineer-in-Charge/Site-in-Charge or his representative and the same would be deemed to be correct and binding on the Contractor.
- 7.a.3. In case of any dispute as to the mode of measurement for any item of work, the latest Indian Standard Specifications shall be followed. In case of any further dispute on the same the same shall be as per the certification of an



outside qualified Engineer/ Consultant. Such a measurement shall be final and binding on the Owner and the Contractor.

7.b. BILLING OF WORKS EXECUTED

The Contractor will submit a bill in approved proforma in quadruplicate to the Engineer-in-Charge/Site-in-Charge of the work giving abstract and detailed measurement for the various items executed during a month, before the expiry of the first week of the succeeding month. The Engineer-in-Charge/Site-in-Charge shall take or cause to be taken the requisite measurements for the purpose of having the bill verified and/or checked before forwarding the same to the disbursement office of the Owner for further action in terms of the Contract and payment thereafter. The Engineer-in-Charge/Site-in-Charge shall verify the bills within 7 days of submission of the Bill by the Contractor.

7.c. RETENTION MONEY

10% of the total value of the Running Account and Final Bill will be deducted and retained by the Owner as retention money on account of any damage/defect liability that may arise for the period covered under the defect liability period clause of the Contract free of interest. Any damage or defect that may arise or lie undiscovered at the time of issue of completion certificate connected in any way with the equipment or materials supplied by contractor or in workmanship shall be rectified or replaced by the contractor at his own expense failing which the Owner shall be entitled to rectify the said damage/defect from the retention money. Any excess of expenditure incurred by the Owner on account of damage or defect shall be payable by the Contractor. The decision of the Owner in this behalf shall not be liable to be questioned but shall be final and binding on the Contractor.

Thus, deduction towards retention money is applicable only in case of job/works contracts (civil, mechanical, electrical, maintenance etc.) where any damage or defect may arise in future (i.e. within 12 months from the date of completion of job) or lie undiscovered at the time of issue of completion certificate.

7.d. STATUTORY LEVIES

7.d.1 The Contractor accepts full and exclusive liability for the payment of any and all taxes, duties, cess, levies and statutory payments payable under all or any of the statutes etc.

Variations of taxes and duties arising out of the amendments to the Central / State enactments, in respect of sale of goods / services covered under this bid shall be to HPCL's account, so long as :

- They relate to the period after the opening of the price bid, but before the contracted completion period (excluding permitted extensions due to delay on account of the contractors, if any) or the actual completion period, whichever is earlier; and
- The vendor furnishes documentary evidence of incurrence of such variations, in addition to the invoices/documents for claiming Cenvat /Input Tax credit, wherever applicable.



All contributions and taxes for unemployment compensation, insurance and old age pensions or annuities now or hereafter imposed by Central or State Governmental authorities which are imposed with respect to or covered by the wages, salaries or other compensations paid to the persons employed by the Contractor and the Contractor shall be responsible for the compliance with all obligations and restrictions imposed by the Labour Law or any other law affecting employer-employee relationship and the Contractor further agrees to comply and to secure the compliance of all sub-contractors with all applicable Central, State, Municipal and local laws, and regulations and requirements of any Central, State or Local Government agency or authority.

Contractor further agrees to defend, indemnify and hold harmless from any liability or penalty which may be imposed by the Central, State or Local authorities by reason of any violation by Contractor or sub-contractor of such laws, regulations or requirements and also from all claims, suits or proceedings that may be brought against the Owner arising under, growing out of, or by reasons of the work provided for by this contract by third parties, or by Central or State Government authority or any administrative sub-division thereof. The Contractor further agrees that in case any such demand is raised against the Owner, and Owner has no way but to pay and pays/makes payment of the same, the Owner shall have the right to deduct the same from the amounts due and payable to the Contractor. The Contractor shall not raise any demand or dispute in respect of the same but may have recourse to recover/receive from the concerned authorities on the basis of the Certificate of the Owner issued in that behalf.

7.d.2. The rates quoted should be inclusive of all taxes. However, wherever a tax to be deducted at source the same will be deducted from the bills of the Contractor and paid to the concerned authorities. The proof of such payments of tax on works contract will be furnished to the contractor.

The vendor shall comply with all the provisions of the GST Act/Rules/requirements like providing of tax invoices, payment of taxes to the authorities within the due dates, filing of returns within the due dates etc. to enable HPCL to take Input Tax Credit. In case of imports, vendor shall provide import documents and invoice fulfilling the requirement of Customs Act and Rules. Vendor will be fully responsible for complying with the Customs provisions to enable HPCL to take Input Tax Credit.

In case, HPCL is not able to take Input Tax Credit due to any noncompliance/default/negligence of the seller of goods/service provider, the same shall be recovered from the pending bills/dues (including security deposit, BG etc.)

Vendor shall be responsible to indemnify the Corporation for any loss, direct or implied accrued to the Corporation on account of supplier/service provider failure to discharge his statutory liabilities like paying taxes on time, filing appropriate returns within the prescribed time etc.

7.d.3. Income tax will be deducted at source as per rules at prevailing rates, unless certificate, if any, for deduction at lesser rate or nil deduction is submitted by the Contractor from appropriate authority.



- 7.d.4 The contractor shall provide accurate particulars of PAN number as required, under Section 206AA of Income Tax Act 1961.
- 7.d.5 The contractors having their 'tax residency status' outside India shall provide Tax Residency Certificate (TRC), issued by Government of the Country or the specified territory where the Contractor is a Resident. Rule 21AB of the Income Tax Rules, 1962 has prescribed the contents of a TRC. This would enable the Corporation to deduct tax at source by duly considering the 'treaty relief', if any, under Double Taxation Avoidance Agreement (DTAA) entered into between GOI and the respective country/specified territory in which the Contractors' 'tax residency status' is currently in force.
- 7.d.6 Anti-Profiteering Clause GST Act anti-profiteering provisions mandates that any reduction in tax rates or benefits of input tax credits be passed on to the consumer by way of commensurate reduction in prices. Vendors to take note of the same and pass such benefits while quoting their price.

7.e. MATERIALS TO BE SUPPLIED BY CONTRACTOR

- 7.e.1. The Contractor shall procure and provide the whole of the materials required for construction including tools, tackles, construction plant and equipment for the completion and maintenance of the works except the materials viz. steel and cement which may be agreed to be supplied as provided elsewhere in the contract. The contractor shall make arrangement for procuring such materials and for the transport thereof at their own cost and expenses.
- 7.e.2. The Owner may give necessary recommendation to the respective authority if so desired by the Contractor but assumes no responsibility of any nature. The Contractor shall procure materials of ISI stamp/certification and supplied by reputed suppliers borne on DGS&D list.
- 7.e.3. All materials procured should meet the specifications given in the tender document. The Engineer-in-charge may, at his discretion, ask for samples and test certificates for any batch of any materials procured. Before procuring, the Contractor should get the approval of Engineer-in-Charge/Site-in-Charge for any materials to be used for the works.
- 7.e.4. Manufacturer's certificate shall be submitted for all materials supplied by the Contractor. If, however, in the opinion of the Engineer-in-Charge/Site-in-Charge any tests are required to be conducted on the material supplied by the Contractor, these will be arranged by the Contractor promptly at his own cost.

7.f. MATERIALS TO BE SUPPLIED BY THE OWNER

- 7.f.1. Steel and Cement maybe supplied by the Owner to the contractor against payment by Contractor from either godown or from the site or within work premises itself and the contractor shall arrange for all transport to actual work site at no extra cost.
- 7.f.2. The contractor shall bear all the costs including loading and unloading, carting from issue points to work spot storage, unloading, custody and handling and stacking the same and return the surplus steel and cement to the Owner's storage point after completion of job.

ANNEXURE 7a: GENERAL TERMS & CONDITIONS OF WORKS CONTRACT

- The contractor will be fully accountable for the steel and cement received from the 7.f.3. Owner and contractor will give acknowledgement/receipt for quantity of steel and cement received by him each time he uplifts cement from Owner's custody.
- For all computation purposes, the theoretical cement consumption shall be considered as per CPWD standards.
- 7.f.5. Steel and Cement as received from the manufacturer/stockists will issued to the contractor. Theoretical weight of cement in a bag will considered as 50 Kg. Bags weighing upto 4% less shall be accepted by the contractor and considered as 50 Kg. per bag. Any shortage in the weight of any cement bag by more than 4% will be to the Owner's account only when pointed out by the Contractor and verified by Engineer-in-Charge/Site in Charge at the time of Contract or taking delivery.
- 7.f.6. The contractor will be required to maintain a stock register for receipt, issuance and consumption of steel and cement at site. Cement will be stored in a warehouse at site. Requirement of cement on any day will be taken out of the warehouse. Cement issued shall be regulated on the basis of FIRST RECEIPT to go as FIRST ISSUE.
- 7.f.7. Empty cement bag shall be the property of the Contractor. Contractor shall be penalised for any excess/under consumption of cement. The penal rate will be twice the rate of issue of cement for this work.
- 7.f.8. All the running bills as well as the final bills will be accompanied by cement consumption statements giving the detailed working of the cement used, cement received and stock-on-hand.
- 7.f.9. The Contractor will be fully responsible for safe custody of cement once it is received by him and during transport. Owner will not entertain any claims of the contractor for theft, loss or damage to cement while in their custody.
- 7.f.10. The contractor shall not remove from the site any cement bags at any time.
- 7.f.11. The Contractor shall advise Engineer-in-charge/Site-in-charge in writing atleast 21 days before exhausting the Cement stocks already held by Contractor to ensure that such delays do not lead to interruptions in the progress of work.
- 7.f.12. Cement shall not be supplied by the Owner for manufacturing of mosaic tiles, precast cement jali and any other bought out items which consume cement and temporary works.
- 7.f.13. Cement in bags and in good usable condition left over after the completion of work shall be returned by the contractor to the Owner. The Owner shall make payment to the Contractor at the supply rate for such stocks of cement they accept and receive. Any refused stock of cement shall be removed by the Contractor from the site at his cost and expenses within 15 days of completion of the work.

8. PAYMENT OF CLAIMS AND DAMAGES

8.1. Should the Owner have to pay money in respect of claims or demands as aforesaid the amount so paid and the costs incurred by the Owner shall be charged to and paid by the Contractor and the Contractor shall not be entitled to dispute or question the right of



the Owner to make such payments notwithstanding the same may have been without his consent or authority or in law or otherwise to the contrary.

8.2. In every case in which by virtue of the provisions of Workmen's Compensation Act, 1923, or other Acts, the Owner is obliged to pay Compensation to a Workman employed by the Contractor in execution of the works, the Owner will recover from the Contractor the amount of compensation so paid and without prejudice to the rights of Owner under the said Act. Owner shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due to the Contractor whether under this contract or otherwise. The Owner shall not be bound to contest any claim made under Section 12 sub section (1) of the said Act, except on the written request of the Contractor and upon his giving to the Owner full security for all costs for which the owner might become liable in consequence of contesting such claim.

8.a. ACTION AND COMPENSATION IN CASE OF BAD WORK

If it shall appear to the Engineer-in-Charge/Site-in-Charge that any work has been executed with bad, imperfect or unskilled workmanship, or with materials, or that any materials or articles provided by the Contractor for execution of the work are not of standards specified/inferior quality to that contracted for, or otherwise not in accordance with the contract, the CONTRACTOR shall on demand in writing from the Engineer-in-Charge/Site-in-Charge or his authorised representative specifying the work, articles complained of, notwithstanding that the same may have been inadvertently passed, certified and paid for, forthwith rectify or remove and reconstruct the work so specified and at his own charge and cost and expenses and in the event of failure to do so within a period of 15 days of such intimation/information/knowledge, the Contractor shall be liable to pay compensation equivalent to the cost of reconstruction by the Owner. On expiry of 15 days period mentioned above, the Owner may by themselves or otherwise rectify or remove and re-execute the work or remove and replace with others, the materials or articles complained of as the case may be at the risk and expenses in all respects of the Contractor. The decision of the Engineerin- Charge/ Site-in-Charge as to any question arising under this clause shall be final and conclusive and shall not be raised as a dispute or shall be arbitrable.

8.b. INSPECTION AND AUDIT OF CONTRACT AND WORKS

This project is subject to inspection by various Government agencies of Government of India. The contractor shall extend full cooperation to all the Government and other agencies in the inspection of the works, audit of the Contract and the documents of Contract Bills, measurements sheets etc. and examination of the records of works and make enquiries interrogation as they may deem fit, proper and necessary. Upon inspection etc. by such agencies if it is pointed out that the contract work has not been carried out according to the prescribed terms and conditions as laid down in the tender documents and if any recoveries are recommended, the same shall be recovered from the contractors running bills/final bill/from ordered/suggested Security Deposit/retention money. The Contractor shall not rise any dispute on any such account and the same shall not be arbitrable.

9. CONTRACTOR TO INDEMNIFY THE OWNER

The Contractor shall indemnify the Owner and every member, officer and employee of the Owner, also the Engineer-in-Charge/Site-in-Charge and his staff against all the actions, proceedings, claims, demands, costs, expenses, whatsoever arising out of or in connection with the works and all actions, proceedings, claims, demands, costs,



expenses which may be made against the Owner for or in respect of or arising out of any failure by the Contractor in the performance of his obligations under the contract. The Contractor shall be liable for or in respect of or in consequence of any accident or injury to any workmen or other person in the employment of the Contractor or his sub contractor and Contractor shall indemnify and keep indemnified the Owner against all such damages, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

10. Price reduction

- i) In case of any delay in completion of the work beyond the CDD, the Owner shall be entitled to be paid Price Reduction by the Contractor. The price reduction shall be initially at the rate of 0.5% (half percent) of the total contract value for every week of the delay subject to a maximum of 5% of the total contract value. The price reduction shall be recovered by the Owner out of the amounts payable to the Contractor or from any Bank Guarantees or Deposits furnished by the Contractor or the Retention Money retained from the Bills of the Contractor, either under this contract or any other contract.
- ii) The Contractor shall be entitled to give an acceptable unconditional Bank Guarantee in lieu of such a deduction if Contractor desires any decision on a request for time extension.
- iii) Once a final decision is taken on the request of the Contractor or otherwise, the price reduction shall be applicable only on the basic cost of the contract and on each full completed week(s) of delay (and for part of the week, a pro-rata price reduction amount shall be applicable).
- iv) This final calculation of price reduction shall be only on the value of the unexecuted portion/quantity of work as on the CDD.
- v) Contractor agrees with the Owner, that the above represents a genuine pre- estimate of the damages which the Owner will suffer on account of delay in the performance of the work by Contractor. The Contractor further agrees that the price reduction amount is over and above any right which owner has to risk purchase under Clause 12.4 and any right to get the defects in the work rectified at the cost of the contractor.

11. DEFECTS AFTER TAKING OVER OR TERMINATION OF WORK CONTRACT BY OWNER

The Contractor shall remain responsible and liable to make good all losses or damages that may occur/appear to the work carried out under this Contract within a period of 12 months from date of issue of the Completion Certificate and/or the date of Owner taking over the work, whichever is earlier. The Contractor shall issue a Bank Guarantee to the Owner in the sum of 10% of the work entrusted in the Contract, from a bank from the list of banks whose bank guarantees are acceptable to the Owner (list enclosed) and if however, the Contractor fails to furnish such a Bank Guarantee the Owner shall have right to retain the Security Deposit and Retention Money to cover the 10% of the Guarantee amount under this clause and to return/refund the same after the expiry of the period of 12 months without any interest thereon. (Please refer to clause 4. Deposits)

® REVISION : PROC-045

R



12. TERMINATION OF CONTRACT

- 12.1 The owner may terminate the contract at any stage of the construction for reasons to be recorded in the letter of termination.
- 12.2 The Owner inter alia may terminate the Contract for any or all of the following reasons that the contractor
 - a) has abandoned the work/Contract.
 - b) has failed to commence the works, or has without any lawful excuse under these conditions suspended the work for 15 consecutive days.
 - c) has failed to remove materials from the site or to pull down and replace the work within 15 days after receiving from the Engineer written notice that the said materials or work were condemned and/or rejected by the Engineer under specified conditions.
 - has neglected or failed to observe and perform all or any of the terms acts, matters or things under this Contract to be observed and performed by the Contractor.
 - e) has to the detriment of good workmanship or in defiance of the Engineer's instructions to the contrary sub-let any part of the Contract.
 - f) has acted in any manner to the detrimental interest, reputation, dignity, name or prestige of the Owner.
 - g) has stopped attending to work without any prior notice and prior permission for a period of 15 days.
 - h) has become untraceable.
 - has without authority acted in violation of the terms and conditions of this contract and has committed breach of terms of the contract in best judgement of the owner.
 - j) has been declared insolvent/bankrupt.
 - k) in the event of sudden death of the Contractor.
- 12.3 The owner on termination of such contract shall have the right to appropriate the Security Deposit, Retention Money and invoke the Bank Guarantee furnished by the contractor and to appropriate the same towards the amounts due and payable by the contractor as per the conditions of Contract and return to the contractor excess money, if any, left over.
- 12.4 In case of Termination of the contract, Owner shall have the right to carry out the unexecuted portion of the work either by themselves or through any other contractor(s) at the risk and cost of the Contractor. In view of paucity of time, Owner shall have the right to place such unexecuted portion of the work on any nominated contractor(s). However, the overall liability of the Contractor shall be restricted to 100 % of the total contract value.
- 12.5 The contractor within or at the time fixed by the Owner shall depute his authorised representative for taking joint final measurements of the works executed thus far and submit the final bill for the work as per joint final measurement within 15 days of the date of joint final measurement. If the contractor fails to depute their representative for joint measurement, the owner the measurement with their Engineer-inshall take Charge/Site-in-Charge or any other outside representatives. Such a measurement shall be final and binding on the Parties and shall not be questioned by the Contractor and no dispute can be raised by the Contractor on the same.
 - **®** REVISION: PROC-043/16.03.2020

(R)



- 12.6 The Owner may enter upon and take possession of the works and all plant, tools, scaffoldings, sheds, machinery, power operated tools and steel, cement and other materials of the Contract at the site or around the site and use or employ the same for the work or employ any other contractor or other person or persons to complete the works. The Contractor shall not in any way object or interrupt or do any act, matter or thing to prevent or hinder such actions, other Contractor or other persons employed for completing and finishing or using the materials and plant for the works. When the works shall be completed or as soon thereafter the Engineer shall give a notice in writing to the Contractor to remove materials and plant, if any, and belonging to the Contractor except as provided elsewhere in the Contract and should the Contractor fail to do so within a period of 15 days after receipt thereof the Owner may sell the same by public auction and shall give credit to the contractor for the amount realised. The Owner shall thereafter ascertain and certify in writing under his hand what (if anything) shall be due or payable to or by the Owner for the value of the plant and materials so taken possession and the expense or loss which the Owner shall have been put to in procuring the works, to be so completed, and the amount if any, owing to the Contractor and the amount which shall be so certified shall thereupon be paid by the Owner to the Contractor or by the Contractor to the Owner, as the case may, and the Certificate of the Owner shall be final and conclusive between the parties.
- 12.7 When the contract is terminated by the Owner for all or any of the reasons mentioned above the Contractor shall not have any right to claim compensation on account of such termination.

® 13. FORCE MAJEURE

Circumstances leading to force majeure

- (a) act of terrorism;
- (b) riot, war, invasion, act of foreign enemies, hostilities (whether war be declared or not), civil war, rebellion, revolution, insurrection of military or usurped power;
- (c) ionising radiation or contamination, radio activity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive assembly or nuclear component;
- (d) epidemics, earthquakes, flood, fire, hurricanes, typhoons or other physical natural disaster, but excluding weather conditions regardless of severity; and
- (e) freight embargoes, strikes at national or state-wide level or industrial disputes at a national or state-wide level in any country where Works are performed, and which affect an essential portion of the Works but excluding any industrial dispute which is specific to the performance of the Works or the Contract.

For the avoidance of doubt, inclement weather, third party breach, delay in supply of materials (other than due to a nationwide transporters' strike) or commercial hardship shall not constitute a Force Majeure event.



Notification of Force Majeure

Contractor shall notify within [10(ten)] days of becoming aware of or the date it ought to have become aware of the occurrence of an event of Force Majeure giving full particulars of the event of Force Majeure and the reasons for the event of Force Majeure preventing the Affected Party from, or delaying the Affected Party in performing its obligations under the Contract.

Right of either party to terminate

If an event of Force Majeure occurs and its effect continues for a period of 180 (one hundred eighty days) or more in a continuous period of 365 (three hundred sixty-five) days after notice has been given under this clause, either Party may terminate the Contract by issuing a written notice of 30 (thirty) days to the other Party.

Payment in case of termination due to Force Majeure

The Contract Price attributable to the Works performed as at the date of the commencement of the relevant event of Force Majeure.

The Contractor has no entitlement and Owner has no liability for:

- any costs, losses, expenses, damages or the payment of any part of the Contract Price during an event of Force Majeure; and
- b) any delay costs in any way incurred by the Contractor due to an event of Force Majeure.

Time extension for such cases will be worked out appropriately.

® 14. DISPUTE RESOLUTION

(A) Discussions and Resolution

- i) The parties shall attempt to resolve all dispute and difference arising out of or relating to this contract through negotiations in good faith. If any dispute or difference remains unresolved, then all such unresolved disputes or differences shall be referred to the Executive Director/SBU Head of HPCL of the concerned department and the Director/ Owner / authorized Senior Official of the contractor/supplier for an amicable solution.
- ii) If any dispute or difference remains unsettled within sixty (60) days from the date on which either Party has served a written notice on the other Party making claims and for discussions, then the provisions of Part B (i.e. Conciliation) of this Clause shall apply.
- **®** REVISION: PROC-053/28.07.2021



® (B) CONCILIATION

- (i) All disputes and differences covered under the Conciliation Rules, 2019 arising out of or relating to this contract including its performance or interpretation, shall be fully and finally settled through Conciliation as per the Conciliation Rules, 2019 of HPCL, as amended from time to time.
- (ii) The Conciliation Rules, 2019 of HPCL and any modification thereof shall be binding upon the Parties
- (iii) The language of the conciliation shall be English;
- (iv) The governing law of this contract shall be of India.
- (v) In case the Conciliation fails, or if there are any disputes or differences which are not covered under Conciliation Rules, 2019, then the parties shall be free to take appropriate legal remedies for adjudication of their disputes.
- (vi) The Courts having jurisdiction over the place where the contract was performed, except for enforcement of decree/judgment, shall be the court having jurisdiction to adjudicate the disputes between the parties.

15. **GENERAL**

- 15.1. Materials required for the works whether brought by the or supplied by the Owner shall be stored by the contractor only at places approved by Engineer-in-Charge/Site-in-Charge. Storage and safe custody of the material shall be the responsibility of the Contractor.
- 15.2. Owner and/or Engineer-in-Charge/Site-in-Charge connected with the contract, shall be entitled at any time to inspect and examine any materials intended to be used in or on the works, either on the site or at factory or workshop or at other place(s) manufactured or at any places where these are laying or from which these are being obtained and the contractor shall give facilities as may be required for such inspection and examination.
- 15.3. In case of any class of work for which there is no such specification supplied by the owner as is mentioned in the tender documents, such work shall be carried out in accordance with Indian Standard Specifications and if the Indian Standard Specifications do not cover the same the work should be carried out as per standard Engineering practice subject to the approval of the Engineer-in-Charge/Site-in-Charge.
- **®** REVISION: PROC-053/28.07.2021

SECTION IV - ANNEXURES



ANNEXURE 7a: GENERAL TERMS & CONDITIONS OF WORKS CONTRACT

- 15.4. Should the work be suspended by reason of rain, strike, lockouts or other cause the contractor shall take all precautions necessary for the protection of the work and at his own expense shall make good any damages arising from any of these causes.
- 15.5 The contractor shall cover up and protect from injury from any cause all new work also for supplying all temporary doors, protection to windows and any other requisite protection for the whole of the works executed whether by himself or special tradesmen or sub-contractors and any damage caused must be made good by the contractors at his own expense.
- 15.6 If the contractor has quoted the items under the deemed exports, then it will be the responsibility of the contractor to get all the benefits under deemed exports from the Government. The Owner's responsibility shall only be limited to the issuance of required certificates. The quotation will be unconditional and phrases like "subject to availability of deemed exports benefit" etc. will not find place in it.
- 16. Integrity Pact: Effective 1st September, 2007, all tenders and contracts shall comply with the requirements of the Integrity Pact (IP) if the value of such tenders or contracts is r 1crore & above. Failure to sign the Integrity Pact shall lead to outright rejection of bid.
- 17. Grievances of parties participating or intend to participate in the tender shall be addressed in writing to the officer designate of the Grievance Redressal Cell where the tenders have to be submitted within the stipulated period. Detailed mechanism of Grievance Redressal is available on the HPCL website
- 18. The guidelines for Holiday Listing as adopted and available on HPCL website shall be applicable to all tenders floated and all Purchase Orders/Contracts placed by HPCL.

vivartan

ADDITIONAL NOTE TO BIDDERS ON GST

I) PRICE BID:

- a) Price-bid format: Bidders are advised to ensure that the Price Bid is quoted and uploaded in the e-procurement system. Quoted price shall include Basic cost, packing charges, loading charges, Insurance, Freight, Third Party Inspection Charges and any other charges, if any.
- b) Bidders have to ensure that Bid Price is not mentioned anywhere in the Techno Commercial bid, failing which the bid is liable to be rejected.

2) TAXES & DUTIES:

- a) Bidders to provide GSTIN number, HSN/SAC Code of the Material/Services being supplied and the applicable GST rates separately in the space provided for the same.
- b) The Vendor accepts full and exclusive liability for the payment of any and all applicable taxes (CGST, SGST, IGST, UTGST), levies and statutory payments payable under all or any of the prevailing Central/State statues.
- c) The Vendor shall comply with all the provisions of the GST Act / Rules / requirements like providing of tax invoices, payment of taxes to the authorities within the due dates, filing of returns within the due dates etc. to enable HPCL to take Input Tax Credit.

In case of imports, vendor shall provide import documents and invoice fulfilling the requirement of Customs Act and Rules. Vendor will be fully responsible for complying with the Customs provisions to enable HPCL to take Input Tax Credit. In case, HPCL is not able to take Input Tax Credit due to any non-compliance/default/negligence of the seller of goods / service provider, the same shall be recovered from the pending bills/dues (including security deposit, BG etc.)

Vendor shall be responsible to indemnify the Corporation for any loss, direct or implied, accrued to the Corporation on account of supplier/service provider failure to discharge his statutory liabilities like paying taxes on time, filing appropriate returns within the prescribed time etc.

- d) Every invoice of the vendor shall contain invoice number, date, GSTIN number and HSN/SAC code (Harmonized system Nomenclature/service accounting code) for the items being supplied or services being provided along with tax rate.
- e) The Vendor shall mention their registration status (Registered / Composition / Unregistered) on the bill/invoice. In case there is change in the Registration status of the vendor during the execution of the contract the same should be advised immediately. Due to change in the Registration status from Composition to Registered vendor etc. Corporation will not be liable for any additional tax payments.
- f) GST (CGST/SGST/IGST/UTGST) as applicable shall be reimbursed for the supplies/services.
- g) Corporation will be liable to pay only those taxes and levies as indicated by vendor at the time of Price Bid submission/as agreed subsequently (prior to opening of priced bids). If the actual rate of GST as per GOI notification for the item tendered is different from the rate quoted by bidder(i.e the actual rate of GST is more than quoted by bidder), HPCL will pay the actual tax as per GOI notification by reducing the equivalent amount of differential GST in basic rate of supply/service quoted by bidder.

vivartan

ADDITIONAL NOTE TO BIDDERS ON GST

- h) Any tax, levies or any other form of statutory levies or cost as on closing date of the tender will be treated as included in Priced bid. Taxes, Duties, and Levies not indicated by vendor in the unpriced Bid, but payable, shall be to Vendor's account.
- i) New taxes / change in tax rates / levies imposed by the Indian/State Governments through Gazette notification after the date of submission of last Price Bid but prior to Contractual Delivery Date, the Corporation shall reimburse/ adjust the increase/ decrease in taxes on satisfactory supporting documents being provided by the vendor.
- j) In case goods are not supplied/services not provided within the scheduled delivery period, then the increase in the statutory levies, if any, shall be on vendor's account.

3) ROAD PERMIT/WAY BILL CLAUSE

- a) Suppliers/Contractors shall arrange Road Permits/Waybills by themselves and comply with the statutory laws of the concerned state.
- b) In case as per state laws the issuance of Road Permit/Waybill is to be arranged by the buyer, HPCL will arrange to issue Road Permit/Waybill. In case of imposition of any Tax the same shall be discharged by the buyer and the same will be adjusted against the payments due to vendors against their bills.

4) ANTI-PROFITEERING CLAUSE

GST Act. Anti-profiteering provisions mandates that any reduction in tax rates or benefits of input tax credits be passed on to the consumer by way of commensurate reduction in prices. Vendors to take note of the same and pass such benefits while quoting their price.

5) EVALUATION OF BIDS: Evaluation will be done inclusive of all taxes OR exclusive of taxes as detailed in the tender document.

Registered Vendors: The tax liability will be borne by the vendor and the same shall be considered for the purpose of evaluating the bid.

Unregistered vendors: The tax liability will be borne by HPCL under reverse charge and the same shall be loaded for the purpose of evaluating the bid.

Vendors under composition scheme: The rate is considered to be inclusive of all taxes and no separate tax shall be billed to HPCL and the bid shall be accordingly evaluated.

For this purpose vendor should give status whether Registered, Unregistered or Composition Scheme. In case of different rates of GST quoted by the vendors, Corporation reserves the right to query on the same and adopt the correct classification and GST rate. The decision of Corporation in this regard will be final and binding on the vendor.

For imports, all relevant costs/taxes (as mentioned elsewhere in the tender documents) will be included for the purpose of evaluation.

6) GSTIN Number



ADDITIONAL NOTE TO BIDDERS ON GST

States where the supplies/services are required are given in the price schedule. GSTIN details of HPCL for these states can be taken from our website www.hindustanpetroleum.com.

Vendor is required to provide the GSTIN number of state from where supplies will be made to each of the HPCL delivery locations. In case any changes are warranted during the execution of the contract with regard to change in state where delivery is required or change in the supply location of vendor, the same will be made with mutual consent.



ANNEXURE - 11 (SPECIMEN)

11. COMPOSITE BANK GUARANTEE FOR MOBILISATION ADVANCE, SECURITY DEPOSIT/RETENTION MONEY/PERFORMANCE GUARANTEE

(On Non-Judicial stamp paper of appropriate value)

TO: Hindustan Petroleum Corporation Limited (Address as applicable)

LIM hav hav pro adr "the	CONSIDERATION OF MESSRS. HINDUSTAN PETROLEUM CORPORATION MITED, a Government of India Company registered under the Companies Act, 1956, ving its registered office at 17, Jamshedji Tata Road, Bombay-20 (hereinafter called ne Corporation" (which expression shall include its successor in business and assigns) ving placed an order on Messers			
a.	not to insist upon immediate payment of Security deposit for the fulfilment and performance of the said order			
b.	to pay "the supplier" as and by way of advance upto a sum of Rupees (Rupees only) being% of the value of "the order";			
C.	that "the supplier" shall furnish a security for the performance of "the supplier's" obligations and/or discharge of "the supplier's" liability in connection with the said "order"; and "the Corporation" having agreed with "the supplier" to accept a composite Bank Guarantee for the mobilisation advance, security deposit, retention money and performance guarantee			
We,				
2.	We,			
3.	We, Bank further agree that the amount demanded by "the Corporation" as such shall be final and binding on "the Bank" as to "the Bank" 's liability to pay and the amount demanded and "the Bank" undertake to pay "the Corporation" the			

SECTION IV - ANNEXURES



ANNEXURE 11: COMPOSITE BANK GUARANTEE FOR MOBILISATION

®	3.	We,
	4.	We,
	5.	However, it has been agreed between "the Supplier" and "the Corporation" that there shall be only one Composite Bank Guarantee for both the advance and security deposit performance guarantee/Retention Money @ of% valid till the end of the defects liability period as per the terms of the P.O. No dated and that in proportion with the recovery of advance @% per bill the same amount/value automatically stands credited to the defects liability account/security deposit or retention money as the case may be and will continue to be credited/treated till the entire advance of r is fully recovered from the running bills
		and from the date of full recovery of the advance of r this guarantee automatically, shall stand valid towards the% retention money/defects liability, fully valid in all respects unto a further period of 3 (three) months, as per the Purchase Order of "the Corporation".
	6.	Not withstanding anything contained herein above :
		i. Our liability under this guarantee shall not exceed r
		ii. This Bank Guarantee shall be valid upto and including; and
		iii. We are liable to pay the guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before the expiry of 30 days from the date of expiry of this guarantee.
	7.	We, Bank furtherundertake not to revoke this guarantee during its currency except with the previous consent of "the Corporation" in writing.
	8.	We, Bank lastly agree that "the Bank"'s liability under this guarantee shall not be affected by any change in the constitution of "the Supplier".
	Œ	REVISION: PROC-043/16.03.2020

SECTION IV - ANNEXURES



ANNEXURE 11: COMPOSITE BANK GUARANTEE FOR MOBILISATION

N WITNESS WHEREOF the Bank has executed this doc day of	ument on this	
	For	Bank
	(by its constitu	ted attorney)
	(Signature of a	person authorised
	to sign on beha	alf of "the Bank")*

	Bidder & Organization Details					
Name of Bidder						
Vendor Code	Vendor Code					
	Status (Prop/HUF/Partnership/Ltd Co)					
	NAME OF Proprietor/Partners/Directors)					
Type of	Office Address with Pin Code & Telephone Number					
Organisation & Entity Details	Factory Address with Pin Code & Telephone Number					
	E Mail ID and address					
	Name of Contact Person & Contact Number (Landline/Mobile)					
PAN NUMBER ((copy to be uploaded)					
Whether	If NSIC - Certificate No. & validity					
registered under NSIC/MSME (certificates to	If MSE - Certificate No. & validity					
be uploaded)	Whether SC/ST under MSME (Certificate attached Yes/No)					
	GSTIN number/numbers					
	Whether Composition dealer under GST Act or not. If NO , provide following details: i,ii.					
GST Details	i. Month for which latest GSTR 1 has been filed. Attach acknowledgement thereof.					
	ii. Month for which latest GSTR 3B has been filed. Attach acknowledgement thereof					

Bidders shall fill up the above data and mandatorily upload along with technical bid.

(The following declarations should be typed on the letter head of the tenderer and should be duly signed by an authorized signatory clearly stating the name and designation of the signatory)

DECLARATION ON GST

Payment of GST and filing of GST Returns to enable Hindustan Petroleum Corporation Limited to avail Input Tax Credit (ITC) correctly

With reference to Payment of GST & filing GST Returns for availing Input Tax Credit (ITC) by HPCL as per GST provisions for the Invoices raised by us, we hereby declare as follows:

- (1) We have disclosed all the facts relating to our Firm / Company to M/s Hindustan Petroleum Corporation Limited.
- (2) We hereby declare that we have agreed to pay GST to the respective GST Authorities. In this connection, we hereby agree to furnish to you proof of payment of GST.
- (3) We hereby declare that we will file GST Returns as per GST provisions. In this connection, we hereby agree and undertake to furnish you proof of electronically filed GST Returns.
- (4) We hereby agree as under: -
- i. We will be fully responsible for complying with the GST provisions to enable HPCL to take Input Tax Credit. In case, HPCL is not able to take Input Tax Credit due to any non-compliance/default/negligence of the seller of goods/service provider, the same shall be recovered from the pending bills/dues (including security deposit, BG etc.)
- **ii**. In case of rejection of ITC by the concerned Tax Authority, for non-filing of GST or non-payment of GST amount by us or for any other reasons attributable to us, we hereby agree to indemnify Hindustan Petroleum Corporation Limited in full against all the loss including consequences, liabilities of any kind whatsoever, directly arising from denial of ITC including interest and penalty. We hereby agree and confirm that –

any breach of the above declaration shall be construed as breach of the terms and conditions w.r.t. GST and Hindustan Petroleum Corporation Limited shall be at liberty to take necessary action like Holiday listing (banning of Business dealings) and/or recovering of amounts mentioned

in para 4 (ii) above, from:

- a) any of our Bank Guarantee executed in your favour, if any,
- b) Retention / Security Deposit paid for any of your work, if any or
- c) Other unpaid invoices, if any raised by us on Hindustan Petroleum Corporation Limited

Place:	Signature
	Name:
Date:	Designation
	Seal

ADVICE FROM SUPPLIER/VENDOR/CONTRACTOR FOR E-PAYMENT (ON LETTER HEAD)

To: M/s Hindustan Petroleum Corporation Limited, Mumbai-400 020.

Dear Sirs,

The following is a confirmation/updation of my bank account details and I hereby affirm my / our choice to opt for payment of amounts due to me under various contracts through electronic mode. I understand that HPCL also reserves the right to send the payments due to me by a cheque / Demand Draft / electronic mode or through a banker.

A. SUPPLIER / CONTRACTOR DETAILS

1. Supplier / Contractor Name :
2. Supplier / Contractor Code :
3. Address (Incl. PIN code) :

4. Controlling Office Name/SBU :
5. P.A.No.(photocopy to be enclosed) :
6. E-mail ID :

B. PARTICULARS OF BANK ACCOUNT

1. Bank Name

2. Branch Name /branch code

3. Branch Address (incl. Pin code)

4. 9 Digit MICR No. of Bank and Branch 🥝

5. Account Type (Savings/Cash credit/Current) ::

6. Account Number (as appearing on cheque):
7. IFSC Code of the Branch (For RTGS):

8. IFSC Code of the Branch (For NEFT)

I hereby confirm that the particulars given above are correct and complete and also undertake to promptly advise any changes to the above details to HPCL. If the transaction is delayed or not effected for reasons of incomplete or incorrect information or banking delays, I shall not hold Hindustan Petroleum Corporation Ltd.responsible. I also agree for printing of the bank details on the cheque or DD if the payment is effected by cheque / DD.

Name & Signature of supplier / contractor/Authorized Signatory

Date: Official Seal

Note: 1. Bank details (B 1 to 8) to be confirmed by the bankers. Such confirmation shall be duly signed & stamped by the bank's authorized representative.

2. Please enclose cancelled / photocopy of a cheque.

Name, Seal & Signature of the Bank's authorized representative.

ining Procurement

DECLARATION FOR NON BLACK LISTING

(To be submitted along with un-priced bid)

We, /M/s_____ hereby declare/clarify that we have not been banned by any Government or quasi Government agencies or Public sector Undertakings.

NOTE: If a bidder has been banned by any Government or Quasi Government Agencies or Public Sector Undertakings, the fact must be clearly stated with details. If this declaration is not given along with un-priced bid, the tender will be rejected as non-responsive.

Signature of bidder & Seal



DECLARATION FOR RELATIVES

The tenderer is required to state whether he/she is a relative of any director of HPCL or the tenderer is a firm in which director of HPCL or his relative is a partner of is any other partner of such firm or alternatively the tenderer is a private company in which director of HPCL is a member or director (the list of relative(s) for this purpose is given below)

N.B: Strike off whichever is not applicable. If the tenderer employs any person subsequent to signing of the above declaration and the employee so appointed happens to be relative of the officer of HPCL/Central/State government, the tenderer should submit another declaration furnishing the names of such employees who is /are related to the officer/s of HPCL/Central/State Government.

Date: Signature-----

Name of person signing

Tenderer's Name & address with seal

Redefining Procurement

<u>List of Relatives:</u> A person shall be deemed to be a relative of another, if any and only if, He/She/They are members of Hindu undivided family or He/ she/ they are husband and wife or **The one is related to the other in the manner indicated below:**

Father

Mother (including step mother)

Son (including step son)

Son's wife

Daughter (including step daughter)

Father's father

Mother's mother

Mother's mother

Mother's father

Son's son

Son's son's wife

Son's daughter

Son's daughter's husband

Daughter's husband

Daughter's son

Daughter's son's wife

Daughter's daughter

Daughter's daughter's husband

Brother (including step brother)

(To be submitted on Letter head / emblem)

BID SECURITY DECLARATION (IN LEIU OF EARNEST MONEY DEPOSIT)

Ref :	Ter	der No			Date		
Sub	:	Tender title					
Propri	ieto	of M , in my capacity r/Partner/Director etc.) a der as under:	as		(Rol	e of the	Bidder -
1)		at M/s omitted our bid in respor			subjec	ct tender	and have
2)	Me Me iss fur	at we understand that emorandum bearing Ref emorandum bearing ref ued by Department of P nishing of Earnest Mon eration of the said Office	erence F.9/4/20 erence DPE/7/ ublic Enterprise ey Deposit (EM	020-PPD da /(4)/2017-Fir s, the Owne MD) in the fo	ited 12. n(Part-I) r has de	.11.2020 a dated 19 ecided not	and Office 9.11.2020 to ask for
3)	Th	at in lieu of not furnishin	g the EMD, we	hereby decla	are that	:	
	a)	We will display our com process and will not wire respect during its valid opening of the Unpriced	thdraw or modit	fy it or impai number	r or dei of day	rogate fron ys from th	n it in any
	b)	We will comply contract/agreement/pur time stipulated in the te	chase order ar	nd submit p		•	
	c)	On our failure to ensurentitled to put us under a specified period as peregard will be final.	suspension for	its future ter	nders o	r ban/black	klist us for

d) We will comply with all other formalities which HPCL will communicate to us

during the bid validity period.

4)	The executant and signatory of this Declaration is authorized by the bidder and bidder undertakes to comply and abide by the above declaration.			
Date	Signature			
Place	Stamp / seal			

DECLARATION BY BIDDERS FROM COUNTRY SHARING BORDER WITH INDIA

Following confirmation is sought from all prospective bidders:

- 1. Bidder from a country which shares a land border with India' shall include: (a) an entity incorporated, established or registered in such a country; (b) a subsidiary of one or more entities as per (a) above; (c) an entity substantially owned or controlled by one or more entities as per (a) above; (d) an entity whose beneficial owner is situated in such a country; (e) an Indian or other agent of such an entity; (f) a natural person who is a citizen of such a country; (g) a consortium or JV where any member thereof falls under any of the above. The term "substantially owned or controlled" shall mean, in the case of a Company/LLP or artificial juridical person, ownership/ entitlement whether directly or indirectly, of shares or capital or profits of 25% or more of the entity and in case of a firm or unincorporated JV, ownership/ entitlement whether directly or indirectly, of shares or capital or profits of 15% or more of such firm or unincorporated JV.
- 2. Notwithstanding the above, no bidder from a country which shares a land border with India will be eligible to bid unless the bidder is Registered with the Competent Authority in the Government of India, which is presently the Registration Committee constituted by the Department for the Promotion of Industry and Internal Trade. For the purposes of this clause, "bidder" shall mean any person, firm, company, member of a consortium/ JV, any other artificial juridical person and includes any agency, branch or office owned or controlled by such person/firm/company, etc.
- 3. If any question/ issue arises in respect of the above, the interpretation of Owner shall be final and binding on this issue and shall not be called in question by the Bidder. To the extent possible, the Owner shall be guided by any Orders/ Circulars/ Guidelines issued by the Govt. of India on the subject". Further that, "No bidder, if successful, shall be permitted to sub-contract any work to an entity, which is other prohibited from bidding or not eligible to bid on account of the above restrictions or on account of it being blacklisted/ holiday listed by the Owner/Govt. of India.
- <u>4.</u> Any additional confirmation that is required to meet the requirements may also be sought during the process of tender until the placement of Order. Any bids that are not in conformity with this shall be liable for rejection. The bidders shall confirm acceptance to this.
- <u>5.</u> Action against bidders in the event of false declarations shall be treated as per terms and conditions of tenders.
- 6. Write NA, if not applicable.

Signature of the Bidder

AGREEMENT (UNDER INTEGRITY PACT)

Date:

To:

HINDUSTAN PETROLEUM CORPORATION LIMITED

Sub: Procurement of Bidding Documents

Ref. Tender No. - 21000471-HD-10157

HPCL and the Bidder agree that the Notice Inviting Tender (NIT) is an offer made on the condition that the bidder will sign the Integrity Pact and the Bid would be kept open in its original form without variation or modification for a period of (state the number of days from the last date for the receipt of tenders stated in the NIT) days and the making of the bid shall be regarded as an unconditional and absolute acceptance of this condition of the NIT.

We confirm acceptance and compliance with the Integrity Pact in letter and spirit. We further agree that the contract consisting of the above conditions of NIT as the offer and the submission of Bid as the Acceptance shall be separate and distinct from the contract which will come into existence when bid is finally accepted by HPCL.

The consideration for this separate initial contract preceding the main contract is that HPCL is not agreeable to sell the NIT to the Bidder and to consider the bid to be made except on the condition that the bid shall be kept open for days after the last date fixed for the receipt of the bids and the Bidder desires to make a bid on this condition and after entering into this separate initial contract with HPCL.

HPCL promises to consider the bid on this condition and the Bidder agrees to keep the bid open for the required period. These reciprocal promises form the consideration for this separate initial contract between the parties.

If Bidder fails to honor the above terms and conditions, HPCL shall have unqualified, absolute and unfettered right to encash / forfeit the bid security submitted in this behalf.

Yours faithfully, Yours faithfully

Function/SBU on behalf of HPCL at the time of invitation of tender).

Sd/-**Pallavi Jhingran**

(PURCHASER)

(BIDDER)

#(This agreement should be "pre-signed" by the authorized representatives of the applicable

INTEGRITY PACT

Between

Hindustan Petroleum Corporation Limited (HPCL) hereinafter referred to as "The Buyer",
and
hereinafter referred to as "The Bidder/ Seller/ Contractor"
The Buyer intends to award, under laid down organizational procedures, contract for

In order to achieve these goals, the Buyer will appoint Independent External Monitors (IEMs) who will monitor the tender process and the execution of the contract for compliance with this Integrity Pact.

In this Integrity Pact:-

- a) The term Bidder/ Seller/ Contractor shall mean the party submitting the bid (or, as the case maybe, who enters into a contract with Buyer);
- b) For the purposes of Section 5, the term "transgression" shall mean a wrong, violation or offence of the nature specified in Section 2 of this Pact.

Section 1 - Commitments of the Buyer

- 1. The Buyer commits itself to take all measures necessary to prevent corruption and observe the following principles: -
- a) No employee of the Buyer, personally or through family members or intermediaries will, in connection with the tender or the execution of the contract, demand, take a promise for or accept, for self or any third person, any material or other benefit, which the person is not legally entitled to.
- b) The Buyer will during the tender process treat all Bidder / Seller / Contractor with equality and reason. The Buyer will in particular, before and during the tender process provide to all Bidders / Sellers / Contractors the same information and will not provide to any Bidder / Seller / Contractor confidential / additional information through which any Bidder / Seller / Contractor could obtain an advantage in relation to the tender process or the contract execution.
- c) The Buyer will exclude from the process all known prejudiced persons.

2. If the Buyer obtains information on the conduct of any of its employees, which is a criminal offense under the Indian Penal Code (IPC) or Prevention of Corruption Act (PC Act), or if there be a substantive suspicion in this regard, the Buyer will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder/Seller/Contractor

- 1. The Bidder/Seller/Contractor commit themselves to take all measures necessary to prevent corruption. The Bidder/Seller/Contractor commit themselves to observe the following principles during participation in the tender process and during the contract execution.
- a) The Bidder/Seller/Contractor will not directly or through any other person or firm, offer, promise or give to any of the Buyer's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange, any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- b) The Bidder/Seller/Contractor will not enter into any undisclosed agreement or understanding with any other Bidders/Sellers/Contractors, whether formal or informal. This applies in particular to prices, specifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- c) The Bidder/Seller/Contractor will not commit any offence under the relevant IPC/PC Act; further the Bidder/Seller/Contractor will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Buyer as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d) The Bidder/Seller/Contractor of foreign origin shall disclose the name and address of the agents /representatives in India, if any. Similarly, the Bidder/Seller/Contractor of Indian Nationality shall furnish the name and the address of the foreign owner/holding company, if any. All payments made to Indian agents/ representatives have to be in Indian Rupees only. If Bidder/Seller/ Contractor is an Agent, then either the Agent or the Principal can bid, but not both. No Bidder/Seller/ Contractor shall submit more than one bid. No Agent is permitted to represent more than one manufacturer either in this tender/subsequent/parallel tender for the same item.
- e) The Bidder/Seller/Contractor will when presenting its bid, disclose any and all payments made or which is committed to or intended to be made to agents, brokers or any other intermediaries in connection with the award of the contract.
- f) Bidder /Seller / Contractor who have signed IP shall not approach the Courts while representing the matter before the IEMs and shall await the decision of the IEMs in the matter.
- 2. The Bidder/Seller/Contractor will not instigate any third person to commit offences outlined above or be an accessory to such offences.

Section 3 -Disqualification from tender process and exclusion from future contracts, etc.

If the Bidder/Seller/Contractor, before award of contract or during its execution, has committed a transgression through a violation of Section 2, above or in any other form such as to put their reliability or credibility in question, the Buyer is entitled to take all or any one of the following actions: -

- 1. To disqualify the Bidder/ Seller/Contractor from the tender process. However, the tender process with other Bidders/Sellers/Contractors will continue.
- 2. To terminate the contract if already signed.
- 3. To debar the Bidder/Seller/Contractor from participating in other /future tenders of the buyer for an appropriate period of time as per Buyer's guidelines.
- 4. To inform its CVO in case of acts constituting corruption or take any other action.

Section 4 - Compensation for Damages

- 1. If the Buyer has disqualified the Bidder/Seller/Contractor from the tender process prior to the award of contract according to Section 3, the Buyer is entitled to forfeit, demand and/or recover from Bidder/Seller/Contractor, damages equivalent to the Earnest Money Deposit/ Bid Security.
- 2. If the Buyer has terminated or is entitled to terminate the contract according to Section 3, the Buyer shall be entitled to demand and recover from the Bidder/Seller/Contractor liquidated damages equivalent to Performance Bank Guarantee, unless stipulated otherwise elsewhere in the Contract.

Section 5 - Previous transgression

- 1. The Bidder / Seller / Contractor declares that no previous transgressions have occurred in the last three years with any other Company in any country conforming to the anti-corruption approach or with any Public Sector Enterprise in India or Government of India, that could justify his exclusion from the tender process.
- 2. If a previous transgression has occurred or if the Bidder/ Seller/ Contractor makes any incorrect statement on this subject, he can be disqualified from the tender process or contract terminated and further action can be taken as per the procedure mentioned in "Guidelines for Holiday Listing (Banning of business dealing)". The link for the Guidelines is given in the tender documents.

Section 6 - Equal treatment of all Bidders / Sellers / Contractors

- 1. In case of sub-contracting, the Bidder/ Seller/ Contractor shall take the responsibility of the adoption of the Integrity Pact by the sub-contractor.
- 2. The Buyer will enter into Integrity Pact with identical conditions as this one with all Bidders/Sellers/ Contractors.
- 3. The Buyer will disqualify from the tender process all Bidders / Sellers / Contractors who do not sign this Pact or violate its provisions.

Section 7 - Independent External Monitor

- 1. The Buyer has appointed competent and credible Independent External Monitors (IEMs) for this Pact after approval by Central Vigilance Commission. The task of the Monitors is to review independently and objectively, whether and to what extent the parties comply with the obligations under the Integrity Pact.
- 2. The Monitors are not subject to instructions by the representatives of the parties and perform their functions neutrally and independently. The Monitors shall have the right to access all contract documents whenever required. It will be obligatory for him/ her to treat the information and documents of the BIDDER/ SELLER/CONTRACTOR, as confidential.
- 3. The Bidder/ Seller/ Contractor accepts that the Monitors have the right to access without restriction to all project documentation of the Buyer including that provided by the Bidder/ Seller/ Contractor. The Bidder/ Seller/Contractor will also grant the Monitors, upon their request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to subcontractors.
- 4. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Sellers/ Contractor(s)/ Sub-contractor(s) with confidentiality. The Monitors shall have no Conflict of Interest while dealing with any case or with any party. If any conflict arises, then that Monitor shall inform the C&MD of Buyer and recuse himself from that case/ matter.
- 5. The Buyer will provide to Monitors sufficient information about all meetings related to any complaint of violation of Integrity Pact and arrange for necessary facilities for smooth conduct of the meetings of the Monitors.
- 6. As soon as the Monitor notices or believes to notice, a violation of this agreement, he/she will so inform the C&MD of the Buyer and request Management to discontinue or take corrective action, or take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 7. The Monitor will submit a written report to the C&MD of Buyer within 8 weeks from the date of reference or information to him by the Buyer and should the occasion arise, submit proposals for correcting problematic situations.
- 8. If the Monitors have reported to the C&MD of Buyer a substantiated suspicion of an offence under relevant IPC/ PC Act, and the Buyer has not within a reasonable period of time taken action to proceed against such offence or report it to its CVO, the Monitor may also transmit this information directly to the Central Vigilance Commission.
- 9. The word 'Monitor' would include both singular and plural.

Section 8 - Pact Duration

The Integrity Pact shall come into force and be valid from the date it is signed by the BIDDER/ SELLER/ CONTRACTOR and shall remain valid up to 12 months after the last payment to the contractor. In case any BIDDER / SELLER / CONTRACTOR is unsuccessful, the Integrity Pact for such Bidder/Seller/Contractor shall expire after 6 months following the date of placement of Contract/ PO on the successful Bidder/Seller/Contractor.

If any claim of violation of the Integrity Pact is made/lodged during the validity period, the same shall be binding and continue to be valid, even after the period stipulated above, unless discharged/determined by Buyer.

Section 9 - Other provisions

- 1. The Integrity Pact is subject to Indian Law. The place of performance and jurisdiction of courts shall be in India. The Arbitration Clause in the main tender document/ contract shall not be applicable to any issue/ dispute arising out of or in relation to the Integrity Pact.
- 2. The actions stipulated in the Integrity Pact are without prejudice to any other legal action that may be taken in accordance with the provisions of the extant law in force relating to contracts or any civil or criminal proceedings.
- 3. If the BIDDER/SELLER/CONTRACTOR is a partnership/consortium, the Integrity Pact must be signed by all the partners or consortium members.
- 4. The signatories are duly authorized to sign and bind the Buyer/ Bidder/ Contractor/ Seller. Any amendment to the Integrity Pact will be made only by a written agreement between the Parties.
- 5. Issues like Warranty/ Guarantee etc. shall be outside the purview of the Independent External Monitors.
- 6. References to singular includes the plural and vice versa. References to "them" or "themselves" shall include a reference to "it" or "itself" and vice versa.
- 7. Should one or several provisions of this agreement turn out to be invalid, the remainder provisions of this agreement remains valid. In this case, the parties will strive to come to an agreement as to their original intentions. This Pact shall have precedence over the Tender/Contract document with regard to any of the provisions covered under this Pact.

Sd/- Pallavi Jhingran	
For and on behalf of the Buyer	For and on behalf of the Bidder/ Seller/Contractor Date: Name: Designation: Seal/Stamp

Tips for successful bid submission in HPCL e-Procurement platform

THANK YOU, for your interest in bidding for HPCL tender in E-Procurement platform. It is designed to ensure security and confidentiality of bids till bid opening and provide transparency after bid opening. There have been few instances of vendors are not being able to submit their bids for various reasons. Based on our experience, we have compiled a list of all probable reasons due to which either vendors miss out on submitting their precious bid or end up submitting defective bids. Needless to mention, the most likely reason is attempting bid generation in the last hour.

Thus it is recommended to start the Bid Preparation process well in advance. We hope this set of handy tips will help you avoid the usual pitfalls at initial stage and submit a perfect bid smoothly in the platform

Tip 1:

Ensure to keep System ready in advance

For 1st time users, ensure the below points are taken care

- ✓ Class IIIB digital certificate issued on organization.
- ✓ Download Signing Utility for Signing and encryption.
- ✓ Install latest JAVA in local machine.
- ✓ Install Drivers for e-token

Tip 2:

- Internet Explorer browser 9 or above
- ✓ Remember to work with only **Internet explorer 9** or above browser.
- ✓ DO NOT access site in Google Chrome/Mozilla Firefox/ Edge or Safari, to avoid issues.

Tip 3:

- Start the process in advance. Submit bids in advance, Rates can be revised later
- ✓ Upload the Digital Certificate and get it validated by HPCL in advance.
- ✓ DO NOT wait for DC validation, for initiating BID preparation. Generate Technical bid and priced bid file in advance.

- ✓ Keep the supporting documents ready in PDF format only.
- ✓ Bids can be submitted once DC validation is completed.

Tip 4:

- **EMD** submission: EMD should reach to HPCL prior Tender due date.
- ✓ Submit EMD well in advance through online (Net Banking) or by way of Demand draft/ Bank Guarantee.
- ✓ While uploading EMD Exemption Certificate (for MSME vendors etc), browse only <u>signed</u> pdf of Exemption certificate.
- ✓ Use online EMD payment option, for faster EMD submission and EMD refunds.

Tip 5:

- Enter Taxes and Extras in proper format.
- ✓ Enter Taxes ONLY in Percentage terms and never in 'Per Unit" basis.
- ✓ Define various tax elements in proper sequence for correct calculation of delivered cost
- ✓ Only Extras like Freight, third party Inspection etc., may be entered in Per unit basis
- ✓ Check total Derived cost on screen and in Priced Bid Pdf, before bid submission

Tip 6:

- ❖ Simply generate the Technical bid pdf / Price bid pdf. Digitally sign & encrypt. Keep Signed file for records and "encrypted (final_signed)" file for submission.
- ✓ DO NOT browse signed PDF while filling responses.
- ✓ It is NOT required to take a print of the Tender Document.
- ✓ It is NOT required to physically sign on all pages of the tender file.
- ✓ It is NOT required to scan the signed tender document and upload the same.
- ✓ <u>DO NOT quote zero rate</u>, in case you do not want to quote for optional items

Tip 7:

- ❖ Save the work by working on Tab "Work without attaching doc". Esp., in tenders having more than 50 items
- ✓ Option for saving work is available only in "Work without attaching doc" tab.
- ✓ Enter all the necessary technical responses in the form provided and click on "Save work on local machine" button for saving the "XML" file.

- ✓ Browse the latest "XML" file only while working on "Update Values from local computer" option.
- ✓ Note: During this process any data entered does not get captured in the server.
- ✓ <u>PB (Price Bid) Excel template</u> shall be used for faster uploading of rates in the tender. Only latest file to be uploaded.

Tip 8:

Always keep "Latest bid" for records.

- ✓ Technical bid pdf and Priced bid pdf can be generated any number of times. Bid may be submitted any number of times.
- ✓ Always remember System will allow Bid submission only for the latest generated document.
- ✓ If bid submitted for more than one time, only latest bid will be considered for evaluation purpose by the system.

Tip 9:

* "REGRET" option for Bid withdrawal.

- ✓ Option for Bid withdrawal is available till tender due date even when the bid is already submitted/ is in preparation stage.
- ✓ Though "Regret" is submitted, "SUBMIT BID" option is available till tender due date.
- ✓ Latest bid submission/ Regret will be considered by system for tender
- ✓ "Regret" will be considered as response submitted against the tender.

Tip 10:

Size of the bid must be as less as possible

- ✓ Keeping bid size small will help in faster Bid submission.
- ✓ The current session out time is 20 minutes. Must Save work before 20 minutes.
- ✓ To keep the size of the bid document small,
 - Scan the documents in low resolution, preferably 150-200 dpi wherein the data should be legible.
 - Scan in grayscale and not in color to reduce file size.
 - For large drawings, scan files in jpeg format and later covert same to pdf format.

Tip 11:

Raise online "Query" for any technical clarification regarding Tender.

- ✓ Every tender has query start date and query end date (specified in the first page of the tender document). Query can be raised within this range only.
- ✓ So starting bid preparation in advance will facilitate to raise query and get reply within time.

Tip 12:

❖ Sign document in advance for Reverse auction event.

- ✓ To participate in Reverse Auction event, work only on RA link, as below https://etender.hpcl.co.in/eProcRA/VendorLoginInput.action
- ✓ Follow the steps given on RA page for RA Participation.
- ✓ Download RA document and sign only with HPCL's "Signing Utility".
- ✓ Do not change DC after RA is published. In case of DC expiry or token lost, ensure to upload new DC and get it validated before RA Start date.

Tip 13:

HPCL E-Procurement Helpline No: 022 41146666/ 61548595

- ✓ For any technical queries related to operation of the portal, send mail to eprochelpdesk@mail.hpcl.co.in OR call at **022-41146666/61548595**.
- ✓ The helpdesk support is available 6 days a week from 8 AM to 8 PM (except public holidays).
- ✓ Must seek help at least two to three days (min) in advance, to avoid last minute disappointment.
- ✓ NOTE: Put dummy rates while taking support from Helpdesk for understanding Bid generation process

<u>Supplementary Section on Bid Bubmission</u>

The two broad classification of tenders for generating bid document, be it "Prequalification bid" or "Technical/ Price bid are as follows:

1. Low value tender having 20-50 items and limited uploads/questions

For Low value tender, "No of items" where rate is to be entered is very limited and there are less no. of questions, vendors can directly work on Prepare tender >> Generate Technical and Priced bid >> Attach document and generate envelope.

Bid generation and submission

Go to Generate Technical and Price bid >> Attach Document and Generate envelope.

- a. Fill responses, upload documents (pdf only), give Prices and Taxes etc and click on "Generate technical bid", followed by "Generate Priced bid".
- b. Save Technical Bid Envelope and Price bid envelope in local machine.
- c. Check the bid documents for correctness. If found OK, digitally signed and encrypted the file using the "Signing cum encryption" utility.
- d. No provision will be available for saving the work in this option. So for Bid resubmission/any other modification, responses/forms/rates etc have to be entered for all items again.

e. Keep "signed" file for records and "encrypted" file for submission

While this method is very fast for generation of bids, it requires full efforts in redoing same if need arises.

2. Moderate to high value tender having more than 50 items and other uploads

The session out time for application is 20 minutes, which means if "generate bid" button is not clicked within 20 minutes of landing in the page the work done will be lost. Thus for moderate to high value tenders (having more than 50 items), Pl use PB Excel template for uploading rates and "Save work" option for preparing Technical bid

The method for "Saving work" is as below:

- a. Click on Prepare tender >> Generate Technical and Priced bid >> "Work without attaching document". Here enter the rates/ responses etc, except for uploading the documents. Once adequate entries are made click on the tab "Save work on local computer", show the path and save the file in local machine.
- b. Now click on "Update Values from Local Computer" and show path of the saved file. The rates and responses will get populated till the previous work done.
- c. The saved values can be edited and Rates/response can be filled up for balance items/sections. Again save the work. **Work can be saved as many times as required**.
- d. Use PB Excel template for uploading/modifying rates etc
- e. While updating values from local computer, always browse only latest generated saved work file.

Bid generation and Submission

- a. Once all the rates/responses are finalized, click on the tab "Generate Technical and Priced bid envelope >> Attach doc and generate envelope.
- b. Click on the tab at the bottom of screen "Update value from local computer". Remember to upload only the latest generated files.
- c. On uploading "save work" file, all the item rates/ responses will be populated against appropriate section. Also in the same page, browse the documents (pdf only) to be uploaded if any.
- d. After checking entered rates/ response sheet and uploaded supporting documents, click on "Generate technical bid envelope" followed by "Generate Priced bid envelope".
- e. Save the PDF files of technical and price bid envelope.
- f. Check the pdf document for correctness. If found OK, digitally signed and encrypted the file using the "Signing cum encryption" utility.

Keep "signed" file for records and "encrypted" file for submission.





Tender No.: 21000471-HD-10157 Tender Published On: 02-Sep-2021 14:37

Integrity Pact					
SI.No.	Description	Attached File	Set Value	Supporting Doc. Req'd	
1	Integrity Pact	integritypact.pdf	-	No	

Integrity Pact is attached separately.



TERMS CONDITIONS AND DOCUMENTS TO UPLOAD				
SI.No.	Description	Attached File	Set Value	Supporting Doc. Reg'd
1	Please confirm that the person who had digitally signed and uploaded the Bid Documents in response to this tender inquiry is an authorised representative of your firm and duly authorised by your management to sign and upload documents on behalf of the firm.		-	No No
2	BID QUALIFICATION FINANCIAL CRITERIA: Pls. upload notarised copy of Profit and Loss statements of preceding three years (i.e. 2018-19, 2019-20 and 2020-21) of audited annual reports.		-	Mandatory
3	BID QUALIFICATION FINANCIAL CRITERIA: Pls. upload notarized copy of Balance Sheets for the last three financial years (i.e. 2018-19, 2019-20 and 2020-21).		-	Mandatory
4	BID QUALIFICATION-TECHNICAL CRITERIA: Pls. upload Notarized copies of work order(s) and or contract(s) and or agreement(s) and work completion certificates as per Technical Bid Qualification Criteria.		-	Mandatory
5	Technical: A. Acceptance of technical specifications and scope of supply as per tender enquiry. B. In case of deviation, confirm that the same has been highlighted separately.		-	No
6	Firm Prices: Confirm quoted prices will remain FIRM and Fixed till complete execution of the order.		-	No
7	Delivery Period Confirm acceptance of delivery period as indicated in the tender documents		-	No
8	Delayed Delivery or Price Reduction: Confirm your acceptance for delayed delivery clause as per the attached Terms and Conditions.		-	No
9	PAYMENT TERMS: Confirm acceptance of tender payment terms		-	No
10	Validity: Confirm that your offer is valid for 120 Days from due date or extended due date of the tender.		-	No
11	Terms and condition: Confirm acceptance of attached instructions to Bidders and Terms and conditions. In case of deviations, confirm that clause wise comments have been indicated.		-	No
12	Indicate whether you are a Govt. Of India undertaking.		-	No
13	Please mention whether the firm is registered as MSE (Micro and Small Industries). Copy of Registration to be uploaded.		-	Allowed
14	If you are a proprietary concern with valid MSE certificate , kindly mention if		-	Allowed
15	proprietor is SC or ST. if yes, upload proof of the same. In case registered with MSE, please confirm whether the MSE is owned by women enterpreneur.		-	Allowed
16	In case of delay in Delivery due to reasons attributable to Bidder, please confirm that any new or additional taxes and duties imposed after contractual delivery dates shall be to Bidder's account.		-	No
17	Confirm acceptance of Scope of Job as per Tender document		-	No
18	Pls. upload Organisation Data as per format given in Tender		-	Mandatory
19	Pls. upload GST Declaration as per format given in Tender		-	Mandatory
20	Upload duly signed stamped INTEGRITY PACT as per the format given in tender. Document shall be duly signed by authorised person on all the pages.		-	Mandatory
21	For Payment purpose Confirm acceptance of e-payments. Fill & upload e-Mandate form accordingly.		-	Mandatory
22	Please upload copy of your PAN card .		-	Mandatory
23	Pls. mention GSTIN Number applicable for this tender and upload your GSTIN Registration Details		-	Mandatory
24	Upload duly filled Technical specifications sheet with your comments/confirmation		-	Mandatory
25	Upload duly filled , signed, stamped declaration regarding Relatives in HPCL in the format provided in Tender		-	Mandatory
26	Upload duly filled, signed, stamped declaration on non-Blacklisting by any govt/Semi govt/PSU in the format provided in Tender		-	Mandatory
27	Upload Bid Security Declaration as per format provided in Tender		-	Mandatory
28	Please confirm that you have read all the corrigenda issued upto final extended due date of Tender and quoted your rates considering all contents of all the published corrigenda		-	Allowed
29	Confirm willingness to participate in Reverse Auction for this tender. Bid submitted with Non acceptance for participation in Reverse Auction are liable for rejection.		-	No
30	Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with Competent Authority Constituted by the Department for Promotion of Industry and Internal Trade (DPIIT). Pls. confirm acceptance. Write NA, if not applicable and upload declaration.		-	Mandatory
31	Pls. upload declaration as per Attachment 1 in the format provided in tender. Pls. note that declaration of local content is mandatory as per tender terms.		-	Mandatory
32	Pls. confirm that CAMC quoted is minimum 7.5% of the total Basic Capital Cost for 5 years for each location.		-	No
33	Name of Contact Person		-	No
34	Contact No.		-	No
32 33	note that declaration of local content is mandatory as per tender terms. Pls. confirm that CAMC quoted is minimum 7.5% of the total Basic Capital Cost for 5 years for each location. Name of Contact Person		-	No No