



OIL INDIA LIMITED
(A Government of India Enterprise)
P.O. Duliajan - 786602, Assam, India
FAX: 91-0374-2800533; E-mail : material@oilindia.in

OIL INDIA LIMITED invites Indigenous Competitive Bid (e-tenders) through its e-Procurement portal [for following e-tender](#) :

E-Tender No.	B.C Date	Material Description & Quantity
SDI3784P15 Dated 03.06.2014 (SINGLE STAGE-TWO BID SYSTEM)	03.07.2014	CCTV SURVEILLANCE SYSTEM FOR OIL INDIA LTD, DULIAJAN

Application showing full address/email address with Tender Fee (Non-refundable) of Rs. 1,000.00 (Excepting PSUs and SSI units registered with NSIC) in favour of M/s Oil India Limited and payable at Duliajan is to be sent to Head-Materials, Oil India Limited, P.O. Duliajan, Assam-786602 upto one week prior to Bid Closing date . The envelope containing the application for participation should clearly indicate "REQUEST FOR ISSUE OF USER ID AND PASSWORD FOR E TENDER NO ..." for easy identification and timely issue of user ID and password. On receipt of requisite tender fee, USER_ID and initial PASSWORD will be communicated to the bidder (through e-mail) and will be allowed to participate in the tender through OIL's e- Procurement portal. No physical tender documents will be provided. Details of NIT can be viewed using "Guest Login" provided in the e-Procurement portal. The link to e-Procurement portal has been provided through OIL's web site www.oil-india.com.



OIL INDIA LIMITED
(A Government of India Enterprises)
PO : Duliajan – 786602
Assam (India)

TELEPHONE NO. (91-374) 2808719

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Email: tuhin_roy@oilindia.in ; erp_mm@oilindia.in

FORWARDING LETTER

Tender No. : SDI3784P15 dated 03.06.14

Tender Fee : Rs 1,000.00

Bid Security Amount : Rs 11.81 Lakhs

Bidding Type : SINGLE STAGE TWO BID SYSTEM

Bid Closing on : As mentioned in the e-portal

Bid Opening on : -do-

Performance Security : Applicable

Integrity Pact : Applicable

OIL invites Bids for **CCTV Surveillance System for Oil India Limited, Duliajan** through its e-Procurement site under **SINGLE STAGE TWO BID SYSTEM**. The bidding documents and other terms and conditions are available at Booklet No. MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area - > Tender Documents

The general details of tender can be viewed by opening the RFx [Tender] under RFx and Auctions.. The details of items tendered can be **found in the Item Data and details uploaded under Technical RFx**.

The tender will be governed by:

- a) “General Terms & Conditions” for e-Procurement as per Booklet No. MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders.
- b) Technical specifications and Quantity as per **Annexure – 1A**.
- c) The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area - > Tender Documents.
- d) In the event of receipt of only a single offer against the tender within B.C. date, OIL reserves the right to extend the B.C. date as deemed fit by the Company. During the extended period, the bidders who have already submitted the bids on or before the original B.C. date, shall not be permitted to revise their quotation.
- e) Any sum of money due and payable to the contractor (including Security Deposit refundable to them) under this or any other contract may be appropriated by Oil India Limited and set-off against any claim of Oil India Limited (or such other person or persons

contracting through Oil India Limited) for payment of sum of money arising out of this contract or under any other contract made by the contractor with Oil India Limited (or such other person or persons contracting through Oil India Limited).

- f) Bidder are advised to fill up the Technical bid check list (**Annexure EEE**) and Response sheet (**Annexure FFF**) given in MS excel format in Technical RFx -> External Area - > Tender Documents. The above filled up document to be uploaded in the **Technical RFX Response**.

Special Note:

1.0 General Qualification Criteria:

In addition to the general BRC/BEC, following criteria on Bidders' Experience and their financial capabilities shall be considered (**documentary evidence to be provided along with the bid in Technical RFx -> External Area - > Tender Documents**) as on the Bid Closing Date:

Criteria	Complied / Not Complied. Documentary evidence submitted / not submitted
Annual financial turnover of the firm in any of the last 3 financial years or current financial year should not be less than Rs 11.80 Crores.	

2.0 Application showing full address/email address with Tender Fee (Non-refundable) of Rs. 1,000.00 in favour of M/s Oil India Limited and payable at Duliajan is to be sent to Head-Materials, Oil India Limited, P.O. Duliajan, Assam-786602. Application shall be accepted only upto one week prior to the bid closing date (or as amended in e-portal). The envelope containing the application for participation should clearly indicate “REQUEST FOR ISSUE OF USER ID AND PASSWORD FOR E TENDER NO ...” for easy identification and timely issue of user ID and password. On receipt of requisite tender fee, USER ID and initial PASSWORD will be communicated to the bidder (through e-mail) and will be allowed to participate in the tender through OIL’s e- Procurement portal. No physical tender documents will be provided. Details of NIT can be viewed using “Guest Login” provided in the e-Procurement portal. The link to e-Procurement portal has been also provided through OIL’s web site www.oil-india.com.

NOTE: PSUs and SSI units are provided tender documents Free of Cost (as per govt guidelines), however they have to apply to OIL's designated office to issue the tender documents before the last date of sale of tender document mentioned in the tender.

3.0 The tender is invited under SINGLE STAGE-TWO BID SYSTEM. The bidders are required to submit both the “TECHNO-COMMERCIAL UNPRICED BID” and “PRICED BID” through electronic format in the OIL’s e-Tender portal within the Bid Closing Date and Time stipulated in the e-Tender.

3.1 Please ensure that Technical Bid / all technical related documents related to the tender are uploaded in the Technical RFx Response-> User - > Technical Bid only. The “TECHNO-COMMERCIAL UNPRICED BID” shall contain all techno-commercial details except the prices. Please note that no price details should be uploaded in Technical RFx Response.

3.2 The “**PRICE BID**” must contain the price schedule and the bidder’s commercial terms and conditions. **The prices of the items should be quoted in “Conditions Tab”. Details of prices as per Bid format / Commercial bid can be uploaded as Attachment under the attachment option under “Notes & Attachments”.**

3.3 A screen shot in this regard is given below. Offer not complying with above submission procedure will be rejected as per Bid Rejection Criteria mentioned in [Annexure-CCC](#).

On “EDIT” Mode- The following screen will appear. Bidders are advised to Upload “Techno-Commercial Unpriced Bid” and “Priced Bid” in the places as indicated above:

Note :

* The “Techno-Commercial Unpriced Bid” shall contain all techno-commercial details **except the prices**.

** The “Price bid” must contain the price schedule and the bidder’s commercial terms and conditions. For uploading Price Bid, first click on Sign Attachment, a browser window will open, select the file from the PC and click on Sign to sign the Sign. On Signing a new file with extension .SSIG will be created. Close that window. Next click on Add Attachment, a browser window will open, select the .SSIG signed file from the PC and name the file under Description, Assigned to General Data and click on OK to save the File.

4.0 Please note that all tender forms and supporting documents are to be submitted through OIL’s e-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with **Tender no.** and **Due date** to **Head Materials, Materials Department, Oil India Limited, Duliajan - 786602, Assam** on or before the Bid Closing Date and Time mentioned in the Tender.

- a) **Original Bid Security**
- b) **Detailed Catalogue (if any)**
- c) **Any other document required to be submitted in original as per tender requirement**

All documents submitted in physical form should be signed on all pages by the authorised signatory of the bidder and to be submitted in triplicate.

5.0 Bidders are requested to examine all instructions, forms, terms and specifications in the bid. Failure to furnish all information required as per the NIT or submission of offers not substantially responsive to the bid in every respect will be at the bidders risk and may result in rejection of its offer without seeking any clarifications.

6.0 Bidders must ensure that their bid is uploaded in the system before the tender closing date and time. Also, they must ensure that above documents which are to be submitted in a sealed envelope are also submitted at the above mentioned address before the bid closing date and time failing which the offer shall be rejected.

7.0 Bid must be submitted electronically only through OIL’s e-procurement portal. Bid submitted in any other form will be rejected.

8.0 **SINGLE STAGE TWO BID SYSTEM** shall be followed for this tender and only the PRICED-BIDS of the bidders whose offers are commercially and technically acceptable shall be opened for further evaluation.

9.0 a) **The Integrity Pact is applicable against this tender.** OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide **Annexure-DDD** of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL’s competent signatory. The proforma has to be returned by the bidder (along with the technical bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Any bid not accompanied by Integrity Pact Proforma duly signed (digitally) by the bidder shall be rejected straightway. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder’s authorized signatory who sign the Bid.

b) The name of the OIL’s Independent External Monitors at present are as under:

- i) **SHRI N. GOPLASWAMI, I.A.S. (Retd.),**
Former Chief Election Commissioner of India
E-mail Id : gopalaswamin@gmail.com
- ii) **SHRI RAMESH CHANDRA AGARWAL, IPS (Retd.)**

10.0 The tender shall be governed by the Bid Rejection & Bid Evaluation Criteria given in enclosed **Annexure-CCC**. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (as per **Annexure-CCC**) contradict the Clauses of the tender and / or “General Terms & Conditions” as per Booklet No. MM/LOCAL/E-01/2005 for E-procurement (LCB Tenders) elsewhere, those in the BEC / BRC shall prevail.

11.0 Please do refer the User Manual provided on the portal on the procedure How to create Response for submitting offer.

NOTE:

Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the NIT terms and conditions of NIT.

Yours Faithfully

**Sd-
(T. ROY)
DEPUTY MANAGER MATERIALS (IP)
FOR : HEAD-MATERIALS**

Tender No & Date: SDI3784P15 dated 03.06.14**BID REJECTION CRITERIA (BRC) / BID EVALUATION CRITERIA (BEC)**

The following BRC/BEC will govern the evaluation of the bids received against this tender. Bids that do not comply with stipulated BRC/BEC in full will be treated as non responsive and such bids shall prima-facie be rejected. Bid evaluation will be done only for those bids that pass through the “Bid Rejection Criteria” as stipulated in this document.

Other terms and conditions of the enquiry shall be as per General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (BRC / BEC) contradict the Clauses of the tender or MM/LOCAL/E-01/2005 elsewhere, those in the BRC / BEC shall prevail.

<u>Criteria</u>	Complied / Not Complied. (Remarks if any)
<p>1.0 BID REJECTION CRITERIA (BRC):</p> <p>The bid shall conform generally to the terms and conditions given in this document. Notwithstanding the general conformity of the bids to the stipulated specifications, the following requirements will have to be particularly met by the Bidders without which the same will be considered as non-responsive and rejected.</p> <p>A) TECHNICAL:</p> <p>1. <u>Bidder's Experience</u> :</p> <p>a) The bidder must have experience of implementing at least one similar campus/ township Security Surveillance System in other PSUs/ Govt. organizations/ public limited companies during the last seven years from the bid closing date. Implementations carried out in closed premises like malls/ office buildings will not be considered as relevant in this case.</p> <p>b) The implementation should have had a minimum of 35 surveillance cameras</p> <p>c) The project should be of minimum Rs. 3.00 (Three) Crores value.</p> <p>d) The bidders must submit copy of Purchase Order along with the bid to substantiate the same. Bidders not conforming to/ quoting against "Bidders Experience" and/ or not providing documentary evidence shall be rejected.</p> <p>2. The bidder must quote for fiber optic cable laying. Bids for a non-OFC implementation will be rejected.</p> <p>3. All items must be supplied by single vendor. Bidders not quoting for all items in the NIT will be rejected.</p>	

B) COMMERCIAL:

- i). Bids are invited under “Single Stage Two Bid System”. Bidders have to submit both the “Techno-commercial Unpriced Bids” and “Priced Bids” through electronic form in the OIL’s e-Tender portal within the bid Closing date and time stipulated in the e-tender. The Techno-commercial Unpriced bid is to be submitted as per scope of works and Technical specification of the tender and the priced bid as per the online Commercial bid format. For details of submission procedure, please refer relevant para of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. Any offer not complying with the above shall be rejected straightway.

ii). Bid security:

The bid must be accompanied by Bid Security of **Rs 11,81,000.00** in OIL's prescribed format as Bank Guarantee or a Bank Draft/Cashier cheque in favour of OIL. The Bid Security shall be submitted manually in sealed envelope superscribed with Tender no. and Bid Closing date to Head Materials, Materials Department, Oil India Limited, Duliajan-786602, Assam on or before the Bid Closing Date and Time mentioned in the Tender. If bid security in ORIGINAL of above mentioned amount is not received within bid closing date and time , the bid submitted through electronic form will be rejected without any further consideration. For exemption for submission of Bid Security, please refer Clause No. 8.8 of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. **The Bank Guarantee towards Bid Security shall be valid for 10 months from Bid closing date. (i.e. upto 03.05.2015).**

In case of extension of Bid Closing date against the tender where a bidder has already submitted his bid with requisite bid security validity within the original B.C. Date, such bidders will extend validity of bid security covering the extended period of the bid closing date.

iii). Performance Security:

The successful Bidder will have to provide Performance Security as below:

a) 1st Performance Security @ 10% of total value of the materials shall be submitted after receipt of order. The Performance Security shall be valid for entire period of warranty of 3 years from the date of commissioning.

b) 2nd Performance Security @ 10% of AMC value shall be submitted before expiry of 1st Performance Security. The Performance Security shall be valid for entire period of AMC of 4 years.

Bidder must confirm the same in their bid. Offers not complying with this clause will be rejected.

The validity requirement of Performance Security is assuming despatch within stipulated delivery period and confirmation to all terms and conditions of order. In case of any delay in despatch or non-confirmation to all terms and conditions of order, validity of the Performance Security is to be extended suitably as advised by OIL.

For exemption for submission of Performance Security, please refer Clause No. 9.12 of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders.

- iv). *The Bank Guarantee should be allowed to be encashed at all branches within India.*
- v). Validity of the bid shall be minimum 120 days from the Bid Closing Date.
- vi). The prices offered will have to be firm through delivery and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and rejected.
- vii). Bids received after the bid closing date and time will be rejected. Similarly, modifications to bids received after the bid closing date & time will not be considered.
- viii). All the Bids must be Digitally Signed using “Class 3” digital certificate with Organisation’s name (*e-commerce application*) as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. The bid signed using other than “Class 3 with Organisation’s Name” digital certificate, will be rejected.
- ix). Technical RFx Response folder is meant for Technical bid only. Therefore, No price should be given in Technical RFx Response folder, otherwise the offer will be rejected.
- x). Price should be maintained in the “online price schedule” only. The price submitted other than the “online price schedule” shall not be considered.
- xi). Integrity Pact :

OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide [Annexure DDD](#) of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL’s competent signatory. The proforma has to be returned by the bidder (along with the technical bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. **Any bid not accompanied by Integrity Pact Proforma duly signed (digitally) by the bidder shall be rejected straightway.** Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder’s authorized signatory who sign the Bid.

2.0 BID EVALUATION CRITERIA (BEC)

The bids conforming to the terms and conditions stipulated in the tender and considered to be responsive after subjecting to the Bid Rejection Criteria as well as verification of original of any or all documents/ documentary evidences pertaining to BRC, will be considered for further evaluation as per the Bid Evaluation Criteria given below.

A) TECHNICAL:

1. The total quoted cost of equipment, installation and commissioning, training, control room operations, Warranty of 3 years and Annual Maintenance Services (4 years) costs will be considered for evaluation of technically acceptable bids.
2. The cost of fiber optic cable laying (45,000 meter) will be considered for bid evaluation. However, the payment against this item will be made on actuals.

B) COMMERCIAL:

- i). To evaluate the inter-se-ranking of the offers, Assam Entry Tax on purchase value will be loaded as per prevailing Govt. of Assam guidelines as applicable on bid closing date. Bidders may check this with the appropriate authority while submitting their offer.
- ii) Priced bids of only those bidders will be opened whose offers are found technically acceptable. The technically acceptable bidders will be informed before opening of the "priced bid".

NOTE:

Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the NIT terms and conditions of NIT.

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TECHNICAL SPECIFICATIONS WITH QUANTITY**Tender No & Date: SDI3784P15 dated 03.06.14**

	Oil India Limited (OIL) is a premier Indian National Oil company under the administrative control of Ministry of Petroleum and Natural Gas, Govt. of India, engaged in the business of exploration, development and production of crude oil and natural gas, transportation of crude oil and production of LPG intends to implement CCTV Surveillance System for its Township, Civil Engineering Department, Materials Department, Contracts Department, IT Department and Remote Drilling Sites on a turnkey basis.	
	<p><u>Pre-bid Survey of CCTV Surveillance System:</u></p> <p>Prospective bidders may carry out a reconnaissance of the OIL Township to ascertain the BOM to be quoted. Security/ Civil Engineering/Materials/Contracts/IT Departments may be contacted before the bidder's personnel arrive to carry out the survey.</p>	
	<p><u>Note:</u></p> <p>a) Locations of Cameras and other diagrams attached. b) Items Checklist for compliance attached. c) Since this is a turnkey project, all items must be supplied by the vendor.</p>	
	<p><u>Scope of Work:</u></p> <p>The successful bidder will be responsible for implementing the entire project on a turnkey basis. The jobs to be carried out by the successful bidder are:</p> <ol style="list-style-type: none"> 1. Set up a single-mode fiber optic network to connect the CCTV cameras to the central control room. This will include <ol style="list-style-type: none"> a) Trenching, b) Conduiting through HDPE pipes(underground). c) Conduiting through GI pipes from ground level to junction box. d) Laying of FO cable. e) The cable route must be properly marked with concrete markers at every 50 meters. The text to be written on each marker will be finalized at the time of implementation. 2. Install and set up the CCTV cameras as per the list. 3. Set up the central control room for CCTV with all necessary monitoring facilities <ol style="list-style-type: none"> a) Necessary servers and storage facilities to record all video footage with redundancy to ensure round-the-clock availability of the system b) Tape Backup system using LTO-6 or later. c) Display screens for real-time viewing of video footage and also viewing of footage already recorded d) UPS as per detailed BoM 4. Operation of the central control room for a period of One (1) year from the date of commissioning (24x7x365). This will also include onsite training of OIL personnel. The vendor's personnel will be responsible for monitoring, assisting OIL security personnel, taking backups as per mutually decided schedule and any other relevant jobs. A minimum of 4 personnel must be considered exclusively for this job. 	

	<p>5. Warranty support of all supplied equipment and software for 3 years.</p> <p>6. AMS of supplied equipment and software for a period of four (4) years after the expiry of the warranty period.</p> <p>7. Replacement of all defective equipment during warranty and AMS periods.</p> <p>8. Supply of all hardware, software and any required accessories to complete the entire project.</p> <p>9. Placement of one support engineer and two technician (in addition to minimum of 4 personnel / operators mentioned above) onsite at Duliajan during warranty and AMS.</p> <p>10. Civil Department must be able monitor the footage of the cameras installed in Civil Department also after its being hooked up with the central system. The Civil Department Control Room will continue to function even after the central Control Room becomes operational.</p> <p>11. If OIL requires any new location under the surveillance during warranty period, the vendor must supply and install the additional items at the same rates and under same terms and conditions.</p> <p>12. For remote drilling installations (15 Locations) bidder has to supply and install CCTV systems for each location. The mobile CCTV systems must consist of an NVR and monitor connected to the camera installed in each location. The mobile CCTV systems may need to be shifted by the vendor every 3 to 4 months.</p> <p>13. The mobile drilling locations will operate in stand-alone mode. However, the CCTV system must have the facility to connect over network to the central control room in Security Department. The camera footage must be saved locally in the NVR at each remote location and the central control room must have the capability and provision to pull/ access the saved data over the network.</p> <p>14. All electrical power supply jobs required to provide power to the equipment at each location will be the responsibility of the successful bidder.</p> <p>15. Continuous power supply to CCTV (except at mobile locations) shall be monitored by the vendor's personnel and the same needs to be rectified when necessary. All spares including poles, cables, MCB, RCD, plug sockets etc. required for rectification shall be supplied, installed and commissioned by the vendor.</p> <p>16. If maintenance is required at the power tapping point from OIL's installations, the vendor's personnel will inform Electrical Engineering Department and ask for shutdown.</p> <p>17. The bidder or Sub-Contractor engaged by the bidder for electrical work must have valid Electrical Contractor License issued by state Electrical Licensing Board, Assam or appropriate authority of State/Central govt</p> <p>18. The personnel working in the electrical circuit shall have Valid wireman/electrician permit issued or recognized by State Licensing Board , Govt of Assam or appropriate authority of State/Central govt.</p> <p>19. While working in the electrical circuit including poles and cables, the vendor's personnel shall use PPE and follow all safety practices as per CEA regulations.</p> <p>20. The tools and tackles, transportation etc. required for operation and maintenance of the entire system shall be arranged by the vendor. However OIL may provide transport for attending calls/installation at mobile locations only.</p>	
	<p><u>General Terms and Conditions:</u></p> <p>1. Bidders must have designated office/ single point of contact in Assam. Address of the same must be submitted with the bid.</p> <p>2. The bidder must submit the Manufacturer's Authorisation Form (MAF) for the quoted cameras, media converters and Cisco switches.</p> <p>3. The successful bidder must follow all safety norms prescribed by OIL while</p>	

	<p>carrying out the job.</p> <p>4. The successful bidder has to obtain necessary security passes, etc. for his personnel to enter the worksites. OIL shall facilitate the process.</p> <p>5. Successful bidder has to arrange for all necessary tools, measuring equipment for carrying out the job.</p> <p>6. Successful bidder has to arrange for their own accommodation and transport during implementation, warranty and AMS periods.</p> <p>7. All onsite personnel stationed by the vendor at Duliajan for operations and maintenance of the entire solution will have to be paid a minimum salary of Rupees 6,500/- (Basic + DA) per month or as applicable as per Govt norms.</p>	
	<p><u>Terms & Conditions for the Electrical Component of this project:</u></p> <p>1. The bidders or his sub-contractor must possess valid electrical contractor license from the appropriate Govt. (Central/State) authority or else must have tie-up with an Electrical Firm having the requisite electrical contractor license. Bidder shall submit an undertaking with their offer that the said tie up shall remain valid till completion of the electrical installation and commissioning jobs.</p> <p>2. The bidders shall also submit an undertaking with the offer for following:</p> <p>a) The bidder shall employ work persons with valid electrician/wireman permits/license issued or recognized by appropriate Govt.(Central/state) authorities to carry out all electrical jobs.</p> <p>b) Bidder shall employ one electrical supervisor to supervise the jobs performed by the teams to the satisfaction of the company. The supervisor shall possess valid supervisor's certificate of competency issued/recognized by appropriate Govt. (Central/state) for supervision of electrical jobs.</p>	
	<p><u>Electrical Part: Special Terms and Conditions</u></p> <p>1. Available power supply from OIL's installations: 230 V, AC, 50HZ, single phase. Power shall be fed to the UPS through an isolating device having, overload, short circuit and earth leakage protection for the safety of devices and lives. Power will be available in a single point.</p> <p>2. Voltage, frequency and phase available will be 230V, 50 Hz, single phase. The party will make appropriate arrangement like increasing the size of cable, step up devices etc. for getting required quality of power for camera devices.</p> <p>3. On finalization of the contract, the party along with electrical personnel will visit the locations and finalize the electrical plan for underground cable trench or overhead stringing of cables and other electrical works. The bidder will prepare the plan and get it approved from Electrical Engineer in Charge before starting of electrical works.</p> <p>4. The make and model of electrical items shall be as mentioned in the PR or approved by Electrical Engineer in Charge.</p> <p>5. The party will tap power from nearest OIL installation in a single point. Power may be available in an outdoor unit like feeder pillar, overhead line etc. In that case the party shall have to mount the isolating device with overload, short circuit and earth leakage protection in an IP 65 enclosure. The box shall be fixed in a safe place. The cable shall be connected using appropriate size lugs and glanding have to be done at cable entry/outgoing point with appropriate size gland.</p> <p>6. In case power is available in an indoor installation, in that case also isolating device shall be mounted in an enclosure of IP 43. All cable connection shall be done using lug, glands etc.</p>	

<p>7. Under ground cable laying procedure:</p> <p>a) The normal size of the trench will be 45 cms. wide and depth of 75 cms. The bottom of the trench must be levelled and properly dressed. Any change in the above mentioned size shall be instructed by the Engineer- in - Charge. Cable shall be laid through GI pipe and buried in the trench.</p> <p>b) Bricks shall be placed crosswise (irrespective of one or more cables laid in the trench pit) over the cable /cables as well as the entire pit as per instructions. There shall be at least ten bricks in every 1150 mm long normal trench and covering the entire cable/cables (brick size 230mm x 115mm). The bricks should be placed close to each other without any gap. Broken bricks shall not be allowed to use.</p> <p>c) After the bricks have been laid the trench shall be filled back with earth (cut earth from the trench) and rammed properly in layers of 25 cms.</p> <p>d) Cable route markers shall be fixed as per instructions.</p> <p>8. Overhead cable stringing</p> <p>i) In case of tapping power from overhead electrical line, termination from overhead line to the incomer isolating device i.e power tapping shall be done by OIL. However all materials like 3X6 sqmm PVCA Aluminium cable, U clip, binding wire, cable gland and lugs, required for termination/connection from overhead line to incomer RCBO shall be supplied by the party.</p> <p>ii) Supply, erection, concreting of pole base as per CPWD standard and stringing of cable in the 9 mtr step pole is in the scope of the party.</p> <p>iii) Electrical Poles shall have following specification :</p> <p>STEEL TUBULAR POLES FOR OVERHEAD LINE 9 mtrs Long Steel stepped Tubular Poles, conforming to IS: 2713 (Part-I&II)-1980 with the following specifications:</p> <p>1) Designation: 410 SP-30</p> <p>2) Material of construction: Conforming to grade Yst 240 of IS:1161-1979</p> <p>3) Corrosion Protection: Pole planting depth should be coated with Bituminous paint as per IS: 1580-1968 and rest of the Pole length be painted with 1(one) coat of red oxide primer as per IS: 2074-1979.</p> <p>4) Earthing Arrangement: Each Pole should be provided with a through hole of 14mm diameter at a height of 300 mm above the planting depth.</p> <p>5) Base Plate: Mild steel Base plate of 300mmx300mmx6mm size should be welded to the bottom of the each Pole as per IS: 2713.</p> <p>6) Tests and test certificates: Tests as per IS: 2713, 228(for sulphur & phosphorus content), 1894 (for finished poles) should be carried out on the Poles and relevant certificates should be sent along with the materials.</p> <p>7) Markings: Pole designation, manufacturer's identifications mark and year of manufacture should be mark on each Pole as per IS: 2713.</p> <p>Pole shall be comprises with Angle Iron Cross arm of suitable size to fix the cable.</p> <p>8) Planting depth of poles shall be : 1.8 metre for 9 metre long pole. The planting depth of the pole shall be as per DSR 2012 11.3 and with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.</p> <p>9) Supplying and erection of stay set complete (galvanised) with 19/20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm, thimble, stay clamps, bow lightener, 3/8" SWG G.I. stay wire foundation including excavation and refilling etc. as required.</p> <p>10. 2" GI pipe for cable entry. GI pipe shall be fixed on the pole where cable shall be taking in and taking out to/from the cable trench. Cable shall be passed through the GI pipe and entered in the trench and out of the trench through the pipe. Pipe shall be</p>	
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	<p>attached with the pole by using clamp with nut & bolts. Make of GI pipe: Tata/jindal</p> <p>11. Stringing of overhead cable. 6 SWG GI wire and the 3x 4.0 mmsq or 3X6.0 mmsq Copper PVCA cable shall be bound by using binding wire and wrap with black adhesive tape. Binding shall be done in the cable with GI wire at a distance of .75 CM .Binding distance shall be uniform for entire length of cable. Binding shall be tight to carry the load of cable during stringing. Stringing of cable shall be done from one pole to another and carry on if required.</p> <p>9. All electrical items and works are to guaranteed for one year from the date of commissioning</p> <p>10. The party shall submit the following details after commission:</p> <p>i) Location wise electrical schematic diagram showing make, model, rating of electrical items with quantity/length.</p> <p>ii) The party shall submit test reports signed by a person having valid electrical supervisory license of competency.</p> <p>11. All materials required for cable trench and stringing on poles are in the scope of supplier.</p>	
	<p>SPECIAL NOTES:</p> <p>1. Party shall supply the items as per requirement in the field.</p> <p>2. The party shall have valid Electrical Bidder License issued or recognized by appropriate Govt. authority. In case license expires during contract period the same shall be renewed by the party. The contract shall be terminated if the license is not renewed if required.</p> <p>3. Party shall employ work persons with valid wireman license issued by appropriate Govt. authority, to carry out all electrical jobs and shall employ one supervisor holding valid supervisor's competency certificate for supervision of electrical jobs.</p> <p>4. All materials and services required for arranging power from OIL installations are in the scope of the party/supplier.</p> <p>5. The party shall take approval from Electrical Engineer in Charge before tapping power from OIL's source. The party shall start working in electrical circuit after getting clearance sheet from OIL's electrical personnel.</p> <p>6. The party shall follow standard procedures described by OIL and other relevant Indian Standard for all electrical works.</p>	
	<p>SAFETY PROCEDURE:</p> <p>1. The National Electricity Code as amended up to date, are to be followed in their entirety. Any installation or portion of installation which does not comply with these codes should be got rectified immediately.</p> <p>2. The detailed instructions on safety procedures given in B.I.S. Code No. 5216-1969- "Code of Safety Procedures and Practices in Electrical Works" shall be strictly followed.</p> <p>3. No inflammable materials shall be stored in places other than the rooms specially constructed for this purpose in accordance with the provisions of Indian Explosives Act. If such storage is unavoidable, it should be allowed only for a short period and in addition, special precautions, such as cutting off the supply to such places at normal times, storing materials away from wiring and switch boards, giving electric supply for a temporary period with the permission of consultants shall be taken.</p> <p>4. The electrical switchgears and distribution boards should be clearly marked to indicate the areas being controlled by them.</p> <p>5. Before energizing on an installation after the work is completed, it should be ensured that all tools have been removed and counted, no person is present inside any</p>	

	enclosure of the switch board etc. any earthing connection made for doing the work has been removed.	
	TECHNICAL SPECIFICATIONS:	
	<p><u>Item No 1. IP Fixed Indoor Camera for Civil Department (Qty = 10 Nos)</u></p> <p>Specification for High Performance Colour Day-Night Fixed Dome IP Camera (Indoor):</p> <p>1. High Performance Colour Day-Night Fixed Dome IP Camera with</p> <ul style="list-style-type: none"> i) Sensor:1/3 inch, type-CCD/CMOS. ii) Pixels 1280x720 minimum iii) Sensitivity 0.3 lux IR OFF and 0.0 lux IR ON. iv) Video resolution : 720p,480p,240p (configurable) v) Frame Rate:30 fps vi) Night Vision : Minimum 15 meter capability. vii) Lens type :Varifocal, auto iris with 3.3-12 mm lens viii) Audio : Line-in Line-out jack ix) Audio Compression : G.711 x) Camera Setup/Control Via Web browser xi) Camera to function on 230 VAC 50 Hz, necessary power adapter and surge protector must be supplied xii) Video compression H.264, MJPEG/MPEG. xiii) Ethernet 10-Base T/100 Base-TX, auto-sensing, half/full duplex,RJ45 xiv) Protocols: RTP, UDP, TCP, IP, HTTP, HTTPS, FTP, DHCP, IGMP, ICMP, SMTP, SNMPv1, RTSP, iSCSI, UPnP, IPv4, IPv6, QoS. xv) PoE : IEEE 802.3af Compliant xvi) Ingress Protection Rating:Standard-IP66,NEMA 4X xvii) Operating Temperature 0°C to 40°C xviii) Humidity : 0% to 90% or better xix) Mount : Suitable vandal resistant mount for wall and ceiling. <p>Others:</p> <ul style="list-style-type: none"> * The quoted camera must be of ONVIF standard and have UL and FCC Certifications. * Camera Housing & Lens should be from the same OEM. * Enclosure (housing for cameras) must be vandal resistant * Camera housing(indoor/outdoor),Mount Adapter, Adds H/V adjustability Wall Mount for housing must be provided. * Ethernet surge protector for camera 	
	<p><u>Item No 2. Outdoor PTZ Dome Camera for Civil Department (Qty = 4 Nos):</u></p> <p>Specification for High Performance Colour Day-Night Outdoor PTZ Dome Camera:</p> <p>1. High Performance Colour Day-Night Outdoor PTZ Dome Camera with</p> <ul style="list-style-type: none"> i) 1/4-in.-type CCD/CMOS, ii) Sensitivity day mode 0.5 lux and night mode 0.01 lux iii) 36x optical zoom and 12x digital zoom. 	

	<p>iv) Wide Dynamic Range (WDR): Minimum 60 dB and Sodium Vapour White Balance mode.</p> <p>v) Dual recording-iSCSI and SD card. Minimum 32 GB SD Card to be provided.</p> <p>vi) Effective Picture Elements- PAL: 440,000</p> <p>vii) Lens 36x Zoom (3.3/3.4-119/122.4 mm)</p> <p>viii) Focus-Automatic</p> <p>ix) Optical Zoom Field of View 1.7° to 57.8°</p> <p>x) Video Output 1.0 Vp-p, 75 Ohm</p> <p>xi) Gain Control Auto/Manual</p> <p>xii) Electronic Shutter Speed 1/1 to 1/10,000 sec.</p> <p>xiii) Signal-to-Noise Ratio (SNR) >50 dB</p> <p>xiv) White Balance</p> <p>xv) Camera Setup/Control Via Web browser</p> <p>xvi) Pan Range 360° continuous</p> <p>xvii) Tilt Angle minimum 10° above horizon</p> <p>xviii) Camera to function on 230 VAC 50 Hz, necessary power adapter and surge protector must be supplied.</p> <p>xix) Video compression H.264, MJPEG/MPEG.</p> <p>xx) GOP Structure IP, IBP, IBBP</p> <p>xxi) Resolution- (Horizontal x Vertical, PAL/NTSC):4CIF/D1 704 x 576/480 (25/30 ips, or 50/60 fields/s for interlaced fields)</p> <p>xxii) Ethernet 10-Base T/100 Base-TX, auto-sensing, half/full duplex,RJ45</p> <p>xxiii) Protocols: RTP, UDP, TCP, IP, HTTP, HTTPS, FTP, DHCP, IGMP, ICMP, SMTP, SNMPv1, RTSP, iSCSI, UPnP, IPv4, IPv6, QoS.</p> <p>xxiv) Ingress Protection Rating:Standard-IP66,NEMA 4X</p> <p>xxv) Operating Temperature 0°C to 50°C</p> <p>xxvi) Humidity : 0% to 90% or better</p> <p>xxvii) Mount : Pendant arm mount and pole mount adapter</p> <p>Others:</p> <ul style="list-style-type: none"> * The quoted camera must be of ONVIF standard and have UL and FCC Certifications. * Camera Housing & Lens should be from the same OEM. * Enclosure (housing for cameras) must be vandal resistant * Camera housing(indoor/outdoor),Mount Adapter, Adds H/V adjustability WallMount for housing must be provided. * Ethernet surge protector for camera 	
	<p><u>Item No 3. NVR for Civil Deptt (Qty = 1 Nos)</u></p> <p>16 channel Video Database Manager , Network Video Recorder with 8 TB storage, inbuilt analytics for Civil department.</p>	
	<p><u>Item No 4. 40-42" inch Colour LED Professional Monitor for Civil Engineering Department (Qty = 1 Nos)</u></p> <p>40-42" inch Colour LED Professional Monitor with resolution 1920 x 1080 for Civil Engineering Department.</p>	
	<p><u>Item No 5. 5 KVA UPS for CCTV at Civil Engineering Department (Qty = 1 Nos)</u></p>	

<p>Online 5 KVA UPS (1 Ph in - 1 Ph Out):</p> <p>Capacity (in kVA / kW): 5 kVA/ 4.5 kW (1-Phase Input / 1-Phase Output) UPS system or bidder can supply 5KVA's higher capacity UPS system for matching 4.5kW capacity.</p> <p>Technology and Capability:</p> <p>a) True Online configuration with double conversion UPS</p> <p>b) Microprocessor /DSP based control, using IGBT devices</p> <p>c) Active Power Factor Correction</p> <p>d) Capability of enhancing UPS capacity / redundancy by operating UPS in 1+1 Parallel Redundant Configuration (PRS).</p> <p>Input facility -Phases / Wires 1-Phase / 2-Wire & Gnd (Phase & Neutral + Ground)</p> <p>Input Voltage Range: 160 - 275V AC (On Full Load)</p> <p>Nominal Input Frequency: 50 / 60 Hz (Auto selectable)</p> <p>Input Frequency Range: 45 to 65 Hz</p> <p>Input Power Factor ≥ 0.97 on Full Load</p> <p>Input Current Harmonic Distortion (THDi) $< 10\%$ on full resistive Load (with Mains THDu less than 1%)</p> <p>Generator Compatibility to genset supply required</p> <p>Input Protection (Thru In-built 1P MCB) Should be provided at the input of the UPS suitable for the full rated capacity of the UPS</p> <p>Nominal Output voltage 220/ 230/ 240VAC (Selectable)</p> <p>Output Voltage Regulation $\pm 2\%$</p> <p>Nominal Output Frequency 50 / 60 Hz (Auto selectable)</p> <p>Output Frequency Regulation ± 0.05 Hz (Free Running / Self Clocked Mode)</p> <p>Output Frequency Slew Rate < 1 Hz / s</p> <p>Output Wave Form: Pure sine wave</p> <p>Output Voltage Distortion (THDu) $< 3\%$ (For R Load)</p> <p>$< 5\%$ (For RCD Load)</p> <p>Crest Factor 2.5 : 1 On Full Load (Minimum)</p> <p>Output Short circuit Protection Electronic / Fused</p> <p>Transient Response: Dynamic Regulation for 10% to 90% step linear load $\pm 10\%$</p> <p>Transient Recovery to steady state condition after 10% to 90% step linear load < 1 cycle</p> <p>Transfer Time (Mode of operation) "Nil from Mains mode to Battery Mode Nil from Battery Mode to Mains mode"</p> <p>Transfer Time (Inverter to Bypass / Bypass to Inverter) < 4 ms (Synchronized Mode)</p> <p>Automatic & Bi-directional static by-pass (In-built) Should be provided to take care of uninterrupted transfer of load from Inverter to bypass (under overload / fault conditions) & automatic retransfer from bypass to inverter (on removal of overload / fault conditions)</p> <p>Overall Efficiency (AC to AC) - Online (Double Conversion) $\geq 92\%$ (On Full Load).</p>	
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<p>Inverter Overload capacity "125% 300 sec 150% 30 sec"</p> <p>Measurements (On LCD) "Input: Voltage / Frequency Bypass: Voltage / Frequency Output: Voltage / frequency Battery: Remaining time / Battery Level Indicator Load: Percentage / Load Level Indicator "</p> <p>Fault Indication (On LCD) "Charger Failure Battery Failed Battery Low Overload "</p> <p>Indications (LED) AC indicator/Battery Mode of Operation / Bypass feeding the load / UPS Fault</p> <p>Audible Alarms Battery Low beep / DC Fault beep/ UPS Overload beep/ o/p short ckt fault beep/ Shutdown beep Backup Required: 8 Hrs Battery Bank Voltage 192 V DC or higher Battery Bank VAh (Vendor to include battery sizing calculations with tender) 49920 VAh or more for 8 Hr backup</p> <p>Batteries Type: Sealed Maintenance Free (SMF) - 12V Cells Battery Makes: Amara Raja / Exide / HBL / Amco / Rocket Number of Battery Banks Maximum Two Banks in parallel Minimum Charger Rating (In-built chargers will be preferred over external chargers) The charger should be able to deliver charging current equivalent to 10% of Battery Ah rating offered.(In case of external chargers, suitable monitoring of the chargers should be provided in the UPS. Also all external chargers taking AC input must have PFC - Power factor correction)</p> <p>Charger type / Charging Method & Charging Voltages "Constant Voltage Constant Current Solid state SMPS charger Float Voltage: 2.25 - 2.26 VPC minimum Boost Voltage: 2.30 - 2.33 VPC minimum.</p> <p>Battery recharge time (After complete discharge): to 90% capacity 8-10 hours Battery Housing : Should be compact and space saving MS steel open racks complete with interconnectors Serial Communication RS232 Port (Option of USB Port should be available) RS2323 Port should be provided as standard in the UPS. However there should be provision for USB port also in the UPS REPO(Remote Emergency Power OFF) / ROO(Remote ON - OFF) Port Should be provided as standard in the UPS Interface to NMS (Network Management System) - To be quoted as option SNMP Card for connecting the UPS to LAN thru Ethernet port & monitoring thru NMS should be available (The cost of SNMP Card / NMS software to be quoted separately) Interface to BMS (Building Management System) - To be quoted as option ModBus</p>	
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	<p>Card for connecting to UPS to BMS thru RS485 & monitoring thru BMS Interface to DCS (Distributed Control System) - To be quoted as option Relay I/O Card or PFC (Potential free contacts) for connecting to UPS to DCS / PLC / SCADA system for communicating UPS operating status</p> <p>Cold Start: UPS should start up On AC Supply (Mains) without DC Supply (Batteries) On DC Supply (Batteries) without AC Supply (Mains)" Automatic Restart UPS should start up automatically on mains resumption after battery low shutdown Self Diagnosis UPS should be capable to carry out self test of Rectifier / Charger /Battery & Inverter module during start-up Physical Operating Temperature: 0 to 40 deg C Operating Humidity: 5% to 95%RH (No Condensing) Type of Cooling Forced Air Noise Level <= 58 dbA at 1 meter distance Form Factor Rack & Tower mountable Reliability MTBF greater than 100000 hours Standard Package of UPS to include the following minimum accessories "1. UPS 2. CD - Monitoring Software 3. RS232 Cable 4. Tower Stand - For use as Tower 5. Brackets for mounting in 19" IT Server / Networking Rack 6. UPS to Battery bank connecting Cable 7. User Manual"</p> <p>Manufacturer : QMS:As per ISO 9001: 2008 EMS:As per ISO 14001: 2004 OSHAS:As per ISO 18001: 2007" Product Safety Certifications: EN 50091-2:1995,Class A or Equivalent SURGE: IEC61000-4-5:level4 or Equivalent CE declaration of conformity or Equivalent Conducted Magnetic Field:IEC61000-4-8: level3 or Equivalent.</p>	
	<p><u>Item No 6. Cable and Conduit for CCTV at Civil Engineering Department (Qty = 1 LOT).</u></p> <p>The vendor need to supply all inter connecting cables, conduit required for the CCTV system at Civil Engineering Department.</p>	
	<p><u>Item No 7. 24 Port Switch for CCTV at Civil Engineering Department (Qty = 1 Nos).</u></p> <p>Layer 3 Switch:</p> <p>Make: Cisco Model: Vendor must specify</p> <p>1. Minimum 24 nos. 1GE PoE, 2 nos. 10 GE SFP Uplink Ports 2. Switching Fabric: 80 Gbps minimum</p>	

	<p>3. Forwarding Rate: 30 mpps minimum</p> <p>4. Cisco Feature set : In addition to IP Base and IP Services feature sets, the offered switch must also support advanced Layer 3 switching (IPv4 and IPv6) features.</p> <p>5. All SFP ports (2) to be populated with appropriate single mode transceivers.</p> <p>6. Appropriate SMARTNET service to be supplied alongwith.</p>	
	<p><u>Item No. 8. Accessories for Fixing CCTV Cameras at Civil Engineering Department (Qty = 1 Nos).</u></p> <p>The vendor need to supply all necessary accessories required for fixing the CCTV Cameras at Civil Engineering Department.</p>	
	<p><u>Item No 9. Outdoor Fixed Camera for OIL Township (25 Nos).</u></p> <p>Specification for High Performance Colour Day-Night Fixed Box-Type IP Camera(Outdoor):</p> <p>1. High Performance Colour Day-Night Fixed Box-type Outdoor IP Camera with</p> <ul style="list-style-type: none"> i) Sensor:1/3 inch, type-CCD/CMOS. ii) Pixels 1280x720 minimum iii) Sensitivity 0.3 lux IR OFF and 0.0 lux IR ON. iv) Video resolution : 720p,480p,240p (configurable) v) Frame Rate:30 fps vi) Night Vision : Minimum 15 meter capability. vii) Lens type :Varifocal, auto iris with 5-50 mm lens viii) Audio : Line-in Line-out jack ix) Audio Compression : G.711 x) Camera Setup/Control Via Web browser xi) Camera to function on 230 VAC 50 Hz, necessary power adapter and surge protector must be supplied xii) Video compression H.264, MJPEG/MPEG. xiii) Ethernet 10-Base T/100 Base-TX, auto-sensing, half/full duplex,RJ45 xiv) Protocols: RTP, UDP, TCP, IP, HTTP, HTTPS, FTP, DHCP, IGMP, ICMP, SMTP, SNMPv1, RTSP, iSCSI, UPnP, IPv4, IPv6, QoS. xv) PoE : IEEE 802.3af Compliant xvi) Ingress Protection Rating:Standard-IP66,NEMA 4X xvii) Operating Temperature 0°C to 40°C xviii) Humidity : 0% to 90% or better xix) Mount : Suitable vandal resistant mount for wall and ceiling. <p>Others:</p> <ul style="list-style-type: none"> * The quoted camera must be of ONVIF standard and have UL and FCC Certifications. * Camera Housing & Lens should be from the same OEM. * Enclosure (housing for cameras) must be vandal resistant * Camera housing (indoor/outdoor),Mount Adapter, Adds H/V adjustability Wall Mount for housing must be provided. * Ethernet surge protector for camera 	
	<p><u>Item No 10. Outdoor PTZ Camera for Oil Township and Remote Drilling Locations. Qty = 73 Nos</u></p>	

	<p>Specification:</p> <p>1. High Performance Colour Day-Night Outdoor PTZ Dome Camera with</p> <ul style="list-style-type: none"> i) 1/4-in.-type CCD/CMOS, ii) Sensitivity day mode 0.5 lux and night mode 0.01 lux iii) 36x optical zoom and 12x digital zoom. iv) Wide Dynamic Range (WDR): Minimum 60 dB and Sodium Vapour White Balance mode. v) Dual recording-iSCSI and SD card. Minimum 32 GB SD Card to be provided. vi) Effective Picture Elements- PAL: 440,000 vii) Lens 36x Zoom (3.3/3.4-119/122.4 mm) viii) Focus-Automatic ix) Optical Zoom Field of View 1.7° to 57.8° x) Video Output 1.0 Vp-p, 75 Ohm xi) Gain Control Auto/Manual xii) Electronic Shutter Speed 1/1 to 1/10,000 sec. xiii) Signal-to-Noise Ratio (SNR) >50 dB xiv) White Balance xv) Camera Setup/Control Via Web browser xvi) Pan Range 360° continuous xvii) Tilt Angle minimum 10° above horizon xviii) Camera to function on 230 VAC 50 Hz, necessary power adapter and surge protector must be supplied. xix) Video compression H.264, MJPEG/MPEG. xx) GOP Structure IP, IBP, IBBP xxi) Resolution- (Horizontal x Vertical, PAL/NTSC):4CIF/D1 704 x 576/480 (25/30 ips, or 50/60 fields/s for interlaced fields) xxii) Ethernet 10-Base T/100 Base-TX, auto-sensing, half/full duplex,RJ45 xxiii) Protocols: RTP, UDP, TCP, IP, HTTP, HTTPS, FTP, DHCP, IGMP, ICMP, SMTP, SNMPv1, RTSP, iSCSI, UPnP, IPv4, IPv6, QoS. xxiv) Ingress Protection Rating:Standard-IP66,NEMA 4X xxv) Operating Temperature 0°C to 50°C xxvi) Humidity : 0% to 90% or better xxvii) Mount : Pendant arm mount and pole mount adapter <p>Others:</p> <ul style="list-style-type: none"> * The quoted camera must be of ONVIF standard and have UL and FCC Certifications. * Camera Housing & Lens should be from the same OEM. * Enclosure (housing for cameras) must be vandal resistant * Camera housing(indoor/outdoor),Mount Adapter, Adds H/V adjustability WallMount for housing must be provided. * Ethernet surge protector for camera 	
	<p><u>Item No 11. NVR/NVMS server having capability for viewing or control at atleast 128 cameras, 60 TB storage , inbuilt analytics for Control Room. (Qty = 1 Nos).</u></p> <p>Network Video Management Solution:</p>	

ALL CAMERAS,RECORDING SERVER (NVR) AND VIDEO MANAGEMENT SOFTWARE SHOULD BE OF SAME MAKE.

- 1.Camera licences upto 200 Cameras, 20 Client Licences , E-Map Applications capable of recording minimum of 256 cameras at 4CIF Resolution/15fps for 30 days with N+1 redundancy with RAID 5,..Includes NVR Servers (2 Nos)+VMS with Master Server (1 No- as specified in Item no. 180).
2. State-of-the-art application of IP video solution: Surrounding view, Alternative view, Digital zoom in/out, Multi-Monitor layout, Instant playback, Multiple video verification on E-Map, Export video wi, Restore scenario used for last time
3. Support multiple electric maps for different application, like GIS map with standard shape file (*.shp), AutoCAD layer, common image picture format (bmp/jpg/img/gis).
4. Email notification: support "if some alarm is triggered, send email to specified users" kind of scenario
5. Instant Playback: supports to view historical video record for past 30 seconds directly from live view window, up to 16 channels at same time.
6. Surrounding View : client supports that one key camera can be associated with less than 12 related surround cameras. On surround video live view mode, if the key camera be displayed, the surround cameras should be automatically displayed in surround view
7. Digital Zoom In/Out : Client supports digital zoom in/out functions to both live view and historical video record view.
8. Multi-Monitor Layout : client supports to display following function panels to multiply monitors. A) Alarm list panel/Task list panel/Device status panel/Device event panel B) System information panel/Historical video search and playback panel C) E-Map vi
9. Restore scenario user used for last time : client supports to restore scenario user used for last time when he/she logout after login.
10. Recording and Playback on Customization
11. Frame by Frame Playback : client can play historical video frame by frame.
12. Backward Playback : client can backward play historical video, only by i-frame.
13. Monitoring system health status, trigger alarm/information notification for initiative diagnosing and maintenance.
14. High Profile H.264
15. ONVIF global standardization support, interoperability between IP-based physical security products
16. Should support latest Windows OS Clients.
17. Manage video streaming from IP cameras and NVR
18. Record searching by time, camera number, event, devices or complex conditions
19. Record and playback by various compression devices including MPEG-4, H.264 and MJPEG video streams along with audio.
20. Snapshot video image for immediate actions
21. Support all cameras offered in this solution.
22. NVR should Built-in standalone server with 16 hard disk bays, capable of continuous 24x7 video recording
23. NVR should Support multi front end solution, including H.264, MPEG-4, MPEG2 and MJPEG formats
24. It should support Complete fail-over solution provided by N+1 redundancy system design
25. NVR storage unit should supports up to 48TB, expansion total storage up to 144

	<p>TB with additional expansion slots.</p> <p>26. It should have option of Hot swappable hard disk for easy maintenance and high availability</p>	
	<p><u>Item No 12. Display Units for CCTV Control Room for Township Surveillance. (Qty = 3 Nos).</u></p> <p>Specification of Monitor (Display Unit) for CCTV Control Room:</p> <p>Make/Model: Vendor must specify</p> <p>Diagonal Viewing Size: 70-75 Inches</p> <p>Resolution: 1920 x 1080 native resolution supporting 1080p (Full HD)</p> <p>Contrast Ratio: 1000 to 1 (typical), Dynamic Contrast Ratio: 2 Million:1 (Max)</p> <p>Backlight Technology: LED</p> <p>Viewing Angle: 178° vertical / 178° horizontal</p> <p>Display Type: Widescreen Flat Panel Display</p> <p>Connectors: Video-in, Audio-IN, Audio-OUT, HDMI, PC-in, RJ-45</p> <p>STAND: Height-Adjustable stand, tilt , swivel and built in cable-management, wall mount accessories and all cables.</p>	
	<p><u>Item No 13. Server for VMS and DB Management for CCTV for OIL Township (Qty =1 Nos):</u></p> <p>Specification of Server for VMS and DB Management:</p> <p>1 Processor Intel® Xeon® Processor E3-1230 E5, 4 Threads, 64 bit (8M Cache, 3.20 GHz)</p> <p>2 Minimum RAM Size 8 GB DDR3. RAM should be sufficient to support 128 cameras.</p> <p>3 Motherboard Intel or OEM Motherboard only</p> <p>4 Form Factor - Rack mountable</p> <p>5 HDD - Minimum 3 TB (Usable), (SAS), RAID 5</p> <p>6 Network Interface Integrated 10/100/1000 Mbps Ethernet Connection; auto-sensing & auto-negotiation, Full Duplex- 2 Nos</p> <p>7 Monitor 22" LCD / LED Monitor,</p> <p>8 Keyboard, Mouse Standard Keyboard & two button optical scroll Mouse .</p> <p>9 Power Supply - 220 ±10% VAC, 50 Hz, pf corrected or better.</p> <p>10 Cables - Suitable Power cables & monitor input cables required</p> <p>11 Manageability The system should have following hardware/ software capabilities: Pre-installed OEM's diagnostic tool for hardware diagnostics; System Hardware Management Tool; Rescue and Recovery with Rapid Restore</p> <p>12 Pre-loaded compatible genuine Microsoft Windows 64-bit OS (with DVD media for restore)</p> <p>13 Data Base - Any suitable database software</p> <p>14 Operating Environment Up to 35 °C ambient temp and Up to 85 % RH non-condensing</p> <p>15 GPU options: One NVIDIA® Quadro® 6000 graphics card or equivalent</p>	
	<p><u>Item No 14. WS/ server with 22" LED monitor for managing LTO device for</u></p>	

<p><u>Township control room (Qty = 1 Nos).</u></p> <p>Model: Bidder to Specify</p> <p>Processor: Intel® Xeon® Processor E5-1620 or higher (Quad core ,3.6GHZ,10MB)</p> <p>Chipset Intel® C600 Series</p> <p>RAM Size: 16 GB 1600MHz ,DDR3 .</p> <p>Motherboard: Intel or OEM Motherboard only</p> <p>Form Factor: Tower Type</p> <p>HDD: 1000 GB SAS (3.5 inch) 7200 RPM (min.) - 3 no. in RAID-1 configuration</p> <p>Optical Drive Slim DVD+/R/RW</p> <p>Network Interface Integrated 10/100/1000 Mbps Ethernet Connection; auto-sensing & auto-negotiation, Full Duplex</p> <p>Audio High Definition Audio .</p> <p>Monitor 22" LED display., Same make of WS OEM</p> <p>Exp Slots (Low-profile) 2 x PCIE x16, 2 x PCIE x1</p> <p>Media Bays (Min.) Internal: 3 - 3.5",External: 3 - 3.5" & 2 - 5.25.</p> <p>Keyboard, Mouse Standard Keyboard & two button optical scroll Mouse .</p> <p>Interface:</p> <p>(Min.) 4 - USB 2.0; 1 - serial port; 1 - Keyboard port; 1 - Mouse port;1 - RJ-45 Ethernet; 1 - VGA; audio in/out,1-LTO Drive</p> <p>Power Supply : 230 VAC, 50 Hz.</p> <p>Cables: Suitable Power cables & monitor input cables required.</p> <p>Backup software - To manage backups/restore on LTO device described below, scheduled and manual.</p> <p>OS - Suitable Genuine Microsoft Windows 64-bit OS with restore CD to support the supplied backup software.</p> <p>LTO 6 Tape Drive for taking Backup of CCTV at Township Control Room., Qty = 1 Nos</p> <p>Technology : LTO-6 or later technology.</p> <p>No of Drives: 1 no.</p> <p>Capacity per cartridge: Minimum 1.6 TB compressed : 800 GB native.</p> <p>Transfer Rate: Sustained transfer rate of minimum 120 MB/sec native</p> <p>Indicator : Indicators for write protection, tape in use, data compression and drive cleaning.</p> <p>OS Support : Windows OS as described in server above</p> <p>Backup software support : As described in server above</p> <p>Power: Power : 200 -240 AC , 50 Hz</p> <p>Connectivity : To be connected to Windows server mentioned above</p> <p>Consumables for above described LTO drive: Qty = 10 Nos</p>	
<p><u>Item No 15. Layer 3 Switch (Qty = 7 Nos):</u></p> <p>Make: Cisco</p> <p>Model: Vendor must specify</p> <ol style="list-style-type: none"> 1. Minimum 24 nos. 1GE SFP, 2 nos. 10 GE SFP Uplink Ports 2. Switching Fabric: 80 Gbps minimum 3. Forwarding Rate: 30 mpps minimum 4. Cisco Feature set : In addition to IP Base and IP Services feature sets, the offered switch must also support advanced Layer 3 switching (IPv4 and IPv6) features. 5. All SFP ports (24 + 2) to be populated with appropriate single mode transceivers. 	

	6. Appropriate SMARTNET service to be supplied alongwith.	
	<p><u>Item No 16. Layer 3 Switch (Qty = 2 Nos):</u></p> <p>Make: Cisco Model: Vendor must specify</p> <ol style="list-style-type: none"> 1. Minimum 24 nos. 1GE PoE, 2 nos. 10 GE SFP Uplink Ports 2. Switching Fabric: 80 Gbps minimum 3. Forwarding Rate: 30 mpps minimum 4. Cisco Feature set : In addition to IP Base and IP Services feature sets, the offered switch must also support advanced Layer 3 switching (IPv4 and IPv6) features. 5. All SFP ports (2) to be populated with appropriate single mode transceivers. 6. Appropriate SMARTNET service to be supplied alongwith. 	
	<p><u>Item No 17. Layer 3 Switch for control room (Qty = 2 Nos):</u></p> <p>Make: Cisco Model: Vendor must specify</p> <ol style="list-style-type: none"> 1. Minimum 32 No. 10 GE SFP Ports to be populated with appropriate Single mode SFP transceivers 2. Layer 2 hardware forwarding at 960 Gbps minimum; Layer 3 performance of up to 160 Gbps minimum 3. Redundant Fan and power supplies to be supplied 4. Cisco Feature set : In addition to IP Base and IP Services feature sets, the offered switch must also support advanced Layer 3 switching (IPv4 and IPv6) features. 5. Appropriate SMARTNET service to be supplied alongwith. 	
	<p><u>Item No 18. Media Converter: Single Mode for CCTV OIL Township (Qty = 90 Nos):</u></p> <p>Industrial Grade Single-mode Media Converter:</p> <p>Port type & Quantity: 1x10/100/1000 BaseT, 1x1000 Base LX(Single Mode). 1000 Base LX module for above to be supplied Operating Temperature: -40° C to +75° C Degree of Protection: IP 30 Power supply : 230V AC Surge protection : Shall be equipped with inbuilt surge protection or with external surge protection devices of / Obo Bettermann/ Phonix/MTL. Distance to be supported: 8 km (minimum) Certifications: CE & UL Certified. IP66, NEMA-4X junction box of suitable size to be supplied. This will have to be fixed on the camera pole to house the media convertor and power supply to the camera.</p>	
	<p><u>Item No 19. Category 6 Solid UTP Cable Box (Qty = 1 Nos):</u></p> <p>305 meter per box: Total: 4270 M. Type: Category 6 Unshielded Twisted Pair 4 pair cable shall be compliant with ANSI/TIA/EIA-568-B.2-1 Additional Transmission Performance Specifications for 4-pair Category 6Cabling.</p>	

	<p>Type: Category 6 UTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair, 23 AWG, UTP with Fire Retardant PVC jacket.</p> <p>Supports ultrahigh speed data networks such as Gigabit Ethernet (1000 Base-T and 1000 Base-TX) and beyond.</p> <p>Jacket: The cable jacket shall be Fire Retardant PVC jacket Incorporates central spine maintaining pair separation during installation to ensure premium performance after installation.</p> <p>Mechanical Characteristics: "Construction: 4 twisted pairs separated by internal X shaped, 4 channel, polymer spine / full separator. Half shall not be accepted. Conductor Solid Copper Conductor Diameter 0.56±0.005mm (23 AWG) Insulator Polyolefin Jacket FR PVC Outer Diameter 6.0±0.4mm Max. Temperature 75°C " ROHS/ELV Compliant</p>	
	<p><u>Item No 20. 2 Core Power Cable (Qty = 1 Nos)</u></p> <p>2 Core Power Cable: 1500M 1.5 Sq. mm for camera DC Supply</p>	
	<p><u>Item No 21. 3 Core Power Cable (Qty = 1 Nos)</u></p> <p>3 Core Power Cable: 3000 M 2.5 Sq. mm for Camera AC Supply</p>	
	<p><u>Item No 22. Outdoor Single Mode fiber optic cable (Qty = 1 Nos)</u></p> <p>24 Core Armoured Outdoor Single Mode fiber optic cable:</p> <p>Cable Type: 24 Core fiber Cable, Single Mode, Armoured, Gel filled cable complying to ISO/IEC 11801 - 2nd Edition, type OS2; AS/ACIF S008; AS/NZS 3080, EIA/TIA 568-C.3.; ITU-T REC G 652D spec for Low Water Peak fibre suitable for use in direct burial, outdoor ducts and backbone cabling.</p> <p>Make/Model: The OEM should be ISO 9001:2000 & QS: 9000 Certified. In the changing needs of the global resources if the company has environmental management systems in place like ISO 14001 accreditation the same shall be added advantage.</p> <p>a) With Central steel wire b) Outdoor direct burial c) Loose tube Gel Filled type d) Water blocking Tape d) With corrugated steel tape Armoured e) 9/125µm f) Single Mode FO Cable</p>	

	<p>g) Operational Wavelengths: 1310nm/1550nm</p> <p>h) No. of Core: 24 Nos.</p> <p>i) Maximum Attenuation: 0.4 dB/Km</p> <p>j) RoHS Compliant.</p> <p>f) Total: 45,000 M</p>	
	<p><u>Item No 23. MS conduit pipes (Qty = 1 Nos)</u></p> <p>The vendor need to supply 3000M MS conduit pipes required for OIL Township Surveillance System.</p>	
	<p><u>Item No 24. PVC/HDPE pipes (Qty = 1 Nos):</u></p> <p>The vendor need to supply 30000 Mtr PVC/HDPE pipes required for OIL Township Surveillance System.</p>	
	<p><u>Item No 25. Galvanized Pole(Qty = 97 Nos):</u></p> <p>The vendor need to supply 9M, 3inch dia Galvanized Pole required for OIL Township Surveillance System.</p>	
	<p><u>Item No 26. Angle for cemara fitting (Qty = 97 Nos):</u></p> <p>The vendor need to supply necessary angle for cemara fitting on walls and accessories required for OIL Township Surveillance System.</p>	
	<p><u>Item No 27. GI Pipes (Qty = 1 Nos):</u></p> <p>The vendor need to supply 2Inch GI Pipes required for OIL Township Surveillance System.</p>	
	<p><u>Item No 28. Cat 6 patch cord (Qty = 230 Nos):</u></p> <p>The vendor need to supply 1 M Cat 6 patch cord required for OIL Township Surveillance System.</p> <p>Type: Cat 6 U/UTP Patch Cords are key components of Power Cat 6 U/UTP End-to-End Solution and are designed to support data networks for 10/100BASE-T and 1000BASE-T applications.</p> <p>Conductor: 24 AWG stranded copper wire</p> <p>Length: 1 Meter</p> <p>RJ45 plug and boot material : Clear polycarbonate</p> <p>Outer Sheath: LS0H</p> <p>RJ45 plug dimensions compliant with: ISO/IEC 60603-7-4 and FCC 47 Part 68</p> <p>Contact material: 0.35mm thick copper alloy</p> <p>MIN operating life 750 insertion cycles</p> <p>Sheath Material: LSZH</p> <p>ROHS/ELV : Compliant</p>	
	<p><u>Item No 29. 2 M Cat6 Patch Cord (Qty = 40 Nos):</u></p> <p>Type: Cat 6 U/UTP Patch Cords are key components of Power Cat 6 U/UTP End-to-End Solution and are designed to support data networks for 10/100BASE-T and 1000BASE-T applications.</p>	

	<p>Conductor: 24 AWG stranded copper wire Length: 2 Meter RJ45 plug and boot material : Clear polycarbonate Outer Sheath: LS0H RJ45 plug dimensions compliant with: ISO/IEC 60603-7-4 and FCC 47 Part 68 Contact material: 0.35mm thick copper alloy MIN operating life 750 insertion cycles Sheath Material: LSZH ROHS/ELV : Compliant. The vendor need to supply 2 M Cat6 Patch Cord required for OIL Township Surveillance System.</p>	
	<p><u>Item No 30. I/O Cat 6 face Plate (Qty = 40 Nos):</u></p> <p>The vendor need to supply I/O Cat 6 face Plate required for OIL Township Surveillance System.</p> <p>Type "Cat 6 DataGate Plus jack is designed to maintain clean secure connections. The RJ-45 jack features 'spring-loaded shutter' which protects it from dust and contaminants as well as provides tactile feedback –the spring-loaded shutter pops out an improperly seated patch cord—all with single-handed plug-in and removal."</p> <p>Wire terminal 200 termination cycles Modular Jack 750 mating cycles Plastic Housing Polycarbonate, UL94V-0 rated or equivalent IDC Contact Plating Tin/Lead Plate Faceplate Square shuttered plate with 1/2/4 port. 86 x 86 mm ROHS/ELV Compliant</p>	
	<p><u>Item No 31. FO Patch Cord SC-LC (Qty = 240 Nos):</u></p> <p>The vendor need to supply FO Patch Cord of length 3M(SM, SC-LC) required for OIL Township Surveillance System.</p> <p>Specifications Requirement Make and Type SC to LC Duplex tuned Fiber Optic Patch Cord 3 Mtr, 9/125 Micron Cable Sheath LSZH Cable Diameter 1.8 mm twin zip Ferrule Ceramic Buffer Tight buffered Insertion Loss MAX .3 db Return Loss > 45 db Temperature Range -10 Degree C to +60 Degree C ROHS ROHS Compliant</p>	
	<p><u>Item No 32. 5 Amp 5 PIN Socket (Qty = 100 Nos):</u></p> <p>The vendor need to supply 5 Amp 5 PIN Socket with boards, joint boxes, circular boxes, MCB(30 Nos), MCB Boxes(4 Nos) required for OIL Township Surveillance System.</p>	
	<p><u>Item No 33. 24 Port Patch Panel Cat6 (Qty = 69 Nos):</u></p> <p>The vendor need to supply 24 Port Patch Panel Cat6, 19 Inch required for OIL Township Surveillance System.</p>	

	<p>Type: "19" 24-port, loaded with Jack , A key product used in both Category 6 link and channel gigabit ethernet applications. The IDC section consists of V-shaped contacts that flex not fatigue when terminated. Each port features spring-loaded shutter and can be colour coded to match jack outlets. Offering both front and rear labelling options, the patch panel is constructed of cold-rolled steel for additional strength and durability."</p> <p>Ports: 24 ports Plastic Housing Jack Connector: Polycarbonate, UL94V-0 rated or equivalent Contact Plating: 50u" Gold/100?" Nickel Front Connector interface: RJ45 Circuit Identification Scheme: Icons on each of 24-ports Port Identification 9mm or 12mm Labels on each of 24-ports (to be included in supply) Height 1 U (1.75 inches) ROHS/ELV Compliant</p>	
	<p><u>Item No 34. 9U,19inch Rack (Qty = 15 Nos):</u></p> <p>The vendor need to supply 9U,19 inch Rack(CM,H/W front Panel, Power Connection)required for OIL Township Surveillance System.</p>	
	<p><u>Item No 35. 24 Port Fiber Optic Rack mount LIU, loaded with adapter plates, Splice Tray and Pigtails (Qty = 15 Nos):</u></p> <p>Fiber Management Shelf:24 Port Configurable Fibre drawer, Sliding drawer is a 1U rack mount unit for storing and terminating incoming fibre cable. Using our vast range of 6 Pak Plates you can configure your fibre system to suit all fibre applications. Configurable, Fits up to four 6 Pak Plates/ Angled 6 Pak plates Adhesive labelling for port identification Management rings within system to accommodate excess fibre cordage behind the trough adapters and maintain fibre bend radius. Rugged steel construction, Powder coated mild steel</p> <p>Compact size (mm:) Rack Mount 482mm W x 254mm D x 43mm H Optical Fibre Adapter Plates : SC Adapter Plate Loded, As per requierment Splice Tray Loaded Pigtail: SC, Singlemode, 9/125 ?m</p>	
	<p><u>Item No 36. 10 KVA/9 KW (1-Phase Input / 1-Phase Output) UPS System with Individual Battery Bank in PRS (1+1) MODE for Control Room: 1 Set</u></p> <p>Specification:</p> <p>Capacity (in kVA / kW): 10 kVA/ 9 kW (1-Phase Input / 1-Phase Output) UPS system or bidder can supply 10KVA's highercapacity UPS system for matching 9kW capacity.</p> <p>Technology and Capability:</p> <ul style="list-style-type: none"> a) True Online configuration with double conversion UPS b) Microprocessor /DSP based control, using IGBTdevices c) Active Power Factor Correction (APFC) in converter to improve Input Power Factor 	

<p>> =0.97</p> <p>d) One set UPS system consists of two Nos of 10 KVA UPS in redundant and load balancing mode with individual battery bank of 8 Hrs backup time.</p> <p>Input facility -Phases / Wires: 1-Phase / 2-Wire & Gnd (Phase & Neutral + Ground)</p> <p>Input Voltage Range: 160 - 275V AC (On Full Load)</p> <p>Input Power Factor: >= 0.97 on Full Load</p> <p>Input Current Harmonic Distortion (THDi): < 10% on full resistive Load (with Mains THDu less than 1%)</p> <p>Nominal Output voltage: 220/ 230/ 240VAC (Selectable)</p> <p>Output Voltage Regulation: $\pm 2\%$</p> <p>Nominal Output Frequency: 50 / 60 Hz (Auto selectable)</p> <p>Output Frequency Regulation: ± 0.05 Hz (Free Running / Self Clocked Mode)</p> <p>Output Frequency Slew Rate: < 1 Hz / s</p> <p>Output Wave Form: Pure sine wave</p> <p>Output Voltage Distortion (THDu): "<3% (For R Load) < 5% (For RCD Load)"</p> <p>Crest Factor: 2.5 : 1 On Full Load (Minimum)</p> <p>Output Short circuit Protection: Electronic / Fused</p> <p>Transient Response: Dynamic Regulation for 10% to 90% step linear load: $\pm 10\%$</p> <p>Transient Recovery to steady state condition after 10% to 90% step linear load : < 1 cycle</p> <p>Transfer Time (Mode of operation): "Nil from Mains mode to Battery Mode Nil from Battery Mode to Mains mode"</p> <p>Transfer Time (Inverter to Bypass / Bypass to Inverter): < 4 ms (Synchronized Mode)</p> <p>Automatic & Bi-directional static by-pass (In-built): Should be provided to take care of uninterrupted transfer of load from Inverter to bypass (under overload / fault conditions) & automatic retransfer from bypass to inverter (on removal of overload / fault conditions)</p> <p>Overall Efficiency (AC to AC) - Online (Double Conversion): ">= 90% (On Full Load) "</p> <p>Overall Efficiency (AC to AC) - ECO Mode (Bypass feeding the load under normal conditions): > =96 % (On Full Load)</p> <p>Inverter Overload capacity 125% 300 sec 150% 30 sec</p> <p>Measurements (On LCD): "Input: Voltage / Frequency Bypass: Voltage / Frequency Output: Voltage / frequency Battery: Remaining time / Battery Level Indicator Load: Percentage / Load Level Indicator Fault Indication (On LCD): AC indicator/Battery Mode of Operation / Bypass feeding the load / UPS Fault Audible Alarms: Battery Low beep / DC Fault beep/ UPS Overload beep/ o/p short ckt fault beep/ Shutdown beep. Backup Required 8 Hrs Battery Bank Voltage 192 V DC or higher Battery Bank VAh (Vendor to include battery sizing calculations with tender) 96000 VAh or more for 8 Hr backup "</p> <p>Batteries Type Sealed Maintenance Free (SMF) - 12V Cells</p>	
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<p>Battery Makes Amara Raja / Exide / HBL / Amco / Rocket</p> <p>Number of Battery Banks Maximum Two Banks in parallel</p> <p>Minimum Charger Rating (In-built chargers will be preferred over external chargers)</p> <p>The charger should be able to deliver charging current equivalent to 10% of Battery Ah rating offered.(In case of external chargers, suitable monitoring of the chargers should be provided in the UPS. Also all external chargers taking AC input must have PFC - Power factor correction)</p> <p>Charger type / Charging Method & Charging Voltages "Constant Voltage Constant Current Solid state SMPS charger</p> <p>Float Voltage: 2.25 - 2.26 VPC minimum</p> <p>Boost Voltage: 2.30 - 2.33 VPC minimum"</p> <p>Battery recharge time (After complete discharge) to 90% capacity 8-10 hours</p> <p>Battery Housing (Vendor to provide the GA drawings of the offered Battery Rack)</p> <p>Should be compact and space saving MS steel open racks complete with interconnectors</p> <p>Battery End Cell Voltage 1.75 VPC</p> <p>Serial Communication RS232 Port (Option of USB Port should be available) RS2323 Port should be provided as standard in the UPS. However there should be provision for USB port also in the UPS</p> <p>REPO(Remote Emergency Power OFF) / ROO(Remote ON - OFF) Port Should be provided as standard in the UPS</p> <p>Interface to NMS (Network Management System) - To be quoted as option SNMP Card for connecting the UPS to LAN thru Ethernet port & monitoring thru NMS should be available (The cost of SNMP Card / NMS software to be quoted separately)</p> <p>Interface to BMS (Building Management System) - To be quoted as option ModBus Card for connecting to UPS to BMS thru RS485 & monitoring thru BMS</p> <p>Interface to DCS (Distributed Control System) - To be quoted as option Relay I/O Card or PFC (Potential free contacts) for connecting to UPS to DCS / PLC / SCADA system for communicating UPS operating status</p> <p>Cold Start UPS should start up</p> <p>On AC Supply (Mains) without DC Supply (Batteries)</p> <p>On DC Supply (Batteries) without AC Supply (Mains)"</p> <p>Automatic Restart UPS should start up automatically on mains resumption after battery low shutdown</p> <p>Self Diagnosis UPS should be capable to carry out self test of Rectifier / Charger /Battery & Inverter module during start-up</p> <p>Physical</p> <p>Operating Temperature 0 to 40 deg C</p> <p>Storage Temperature -15 to 45 deg C</p> <p>Operating Humidity 5% ? 95%RH (No Condensing)</p> <p>Type of Cooling Forced Air</p> <p>Noise Level <= 58 dbA at 1 meter distance</p> <p>Form Factor Rack & Tower mountable</p> <p>Air Filters (mandatory) UPS should have internal anticorrosion air filters for dust filtration</p> <p>Dimension (w x d x h) in mm To be furnished by the vendor</p> <p>Weight - in kg To be furnished by the vendor</p> <p>Reliability MTBF greater than 100000 hours</p> <p>Packaging Material / Vibration Withstand & Drop Test "Recyclable (No CFC) &</p> <ol style="list-style-type: none"> 1. Vibration testing as per ISTA -1G Non-operational with Packing 2. Drop Test as per ISTA 1A + 3inch Non-operational wth Packing" 	
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	<p>Standard Package of UPS to include the following minimum accessories "1. UPS 2. CD - Monitoring Software 3. RS232 Cable 4. Tower Stand - For use as Tower 5. Brackets for mounting in 19" IT Server / Networking Rack 6. UPS to Battery bank connecting Cable 7. User Manual"</p> <p>Manufacturer: "QMS: As per ISO 9001: 2008 EMS: As per ISO 14001: 2004 OSHAS: As per ISO 18001: 2007" Product Safety Certifications : "EN 50091-2:1995, Class A or Equivalent SURGE: IEC61000-4-5: level 4 or Equivalent CE declaration of conformity or Equivalent Conducted Magnetic Field: IEC61000-4-8: level 3 or Equivalent"</p>	
	<p><u>Item No 37. 1 KVA UPS (Qty = 8 Nos):</u></p> <p>Specification:</p> <p>Capacity (in kVA / VAh): 1kVA/700W 1-Phase Input / 1-Phase Output Technology and Capability: a) Pulse Width Modulation (PWM) using IGBTs, double conversion b) Noise level: Less than 45 dB c) Operating Temperature: 0°- 40° C d) Output Wave Form: Pure sine wave e) Cooling: Air Cooled f) Total Harmonic Distortion (THD) Voltage: < 3% for 100% linear load. D/G set comp ability: Required Input Voltage Range 100 V AC to 280 V AC (Load dependent) Input Frequency Range 50 ± 10 Hz Implementation Input Power Factor 0.9 or better at full output load with power factor correction (PFC) Voltage: 230VAC, Single Phase Output Voltage Regulation ±2% or Less Output Frequency 50 Hz/60 HZ ± 0.2 Hz Voltage Harmonics Less than 3% (Linear load) Output Power Factor 0.7 or better Overall Efficiency 85 % or better on rated full load of 0.7 PF & 230V, 50Hz AC output Protections "Short Circuits / Over Loading/ Over Temperature / Input low/high voltage control/DC low/high voltage. Indications (LED) To measure and monitor Online, Bypass, On-battery, Overload, Battery low, Fault, Replace battery, Battery level, Loading level Audible Alarms Over Temperature / Main failure/Battery low/ Inverter Overload Backup Required 6 Hrs Rating Voltage : 36 V DC Batteries Type Sealed Maintenance Free (SMF) - 12V Cells Battery recharge time (after complete discharge to 100% charge) & charge rating Battery recharge time should not exceed 12Hrs hours and charger should be capable to charge battery on C10 rating. Battery Bank VAh (Vendor to include battery sizing calculations with tender) "</p>	

	Min.5760 VAh or more for 6 Hr backup " Number of Battery Banks Single bank Battery Makes Battery Make: Exide / Quanta / Rocket Operating Temperature 0 to 40 deg C Operating Humidity 5% - 90%RH Manufacturer : "ISO 9001:2008 ISO 14001:2004 OHSAS 18001:2007" Safety Standard "EN 62040-1 /EQUIVQLENT " EMC: EMC Complied Product Certification (Mandatory): CE MARK	
	<u>Item No 38. Edge switch with 8 port copper and 1 SFP Port (Qty = 15 Nos):</u> Layer 2 Switch for Mobile locations: Switch with 8 port 100-Base-T Make: Cisco	
	<u>Item No 39. 42U 19 Inch Rack (Qty = 1 Nos):</u> The vendor need to supply 42 U,19inch Rack(CM,H/W front Panel, Power Connection)required for OIL Township Surveillance System.	
	<u>Item No 40. NVR-8-CH (Qty = 15 Nos):</u> Specification of NVR-8-CH for Remote Drilling Locations: 8 channel Video Database Manager , Network Video Recorder with 2 TB storage Make/Model: Vendor must specify Other Accessories: a) 22" LED monitor with resolution (Native) 1680 x 1050 pixels. b) Mouse. c) Speakers 2W RMS. d) Media CD/ Drivers if any. e) Power cables (Indian standard).	
	<u>Item No 41. Installation and Commissioning of CCTV System at OIL Township and Remote Drilling Locations (Qty = 1 AU):</u>	
	<u>Item No 42. Any item which may be required (Qty = 1 LOT):</u> Any item which may be required for successful completion of the project to be quoted by the bidder.	
	<u>Item No 43. CCTV for Materials Department (Qty = 8 Nos):</u> Specification : 1. High Performance Colour Day-Night Fixed Dome IP Camera with i) Sensor:1/3 inch, type-CCD/CMOS.	

	<p> ii) Pixels 1280x720 minimum iii) Sensitivity 0.3 lux IR OFF and 0.0 lux IR ON. iv) Video resolution : 720p,480p,240p (configurable) v) Frame Rate:30 fps vi) Night Vision : Minimum 15 meter capability. vii) Lens type :Varifocal, auto iris with 3.3-12 mm lens viii) Audio : Line-in Line-out jack ix) Audio Compression : G.711 x) Camera Setup/Control Via Web browser xi) Camera to function on 230 VAC 50 Hz, necessary power adapter and surge protector must be supplied xii) Video compression H.264, MJPEG/MPEG. xiii) Ethernet 10-Base T/100 Base-TX, auto-sensing, half/full duplex,RJ45 xiv) Protocols: RTP, UDP, TCP, IP, HTTP, HTTPS, FTP, DHCP, IGMP, ICMP, SMTP, SNMPv1, RTSP, iSCSI, UPnP, IPv4, IPv6, QoS. xv) PoE : IEEE 802.3af Compliant xvi) Ingress Protection Rating:Standard-IP66,NEMA 4X xvii) Operating Temperature 0°C to 40°C xviii) Humidity : 0% to 90% or better xix) Mount : Suitable vandal resistant mount for wall and ceiling. </p> <p>Others:</p> <ul style="list-style-type: none"> * The quoted camera must be of ONVIF standard and have UL and FCC Certifications. * Camera Housing & Lens should be from the same OEM. * Enclosure (housing for cameras) must be vandal resistant * Camera housing(indoor/outdoor),Mount Adapter, Adds H/V adjustability Wall Mount for housing must be provided. * Ethernet surge protector for camera 	
	<p><u>Item No 44. Cables and Conduit (Qty = 1 Nos):</u></p> <p>The vendor need to supply all inter connecting cables, conduit required for the CCTV system.</p>	
	<p><u>Item No 45. 24 Port Switch (Qty = 1 Nos):</u></p> <p>Layer 3 Switch:</p> <p>Make: Cisco Model: Vendor must specify</p> <ol style="list-style-type: none"> 1. Minimum 24 nos. 1GE PoE, 2 nos. 10 GE SFP Uplink Ports 2. Switching Fabric: 80 Gbps minimum 3. Forwarding Rate: 30 mpps minimum 4. Cisco Feature set : In addition to IP Base and IP Services feature sets, the offered switch must also support advanced Layer 3 switching (IPv4 and IPv6) features. 5. All SFP ports (2) to be populated with appropriate single mode transceivers. 6. Appropriate SMARTNET service to be supplied alongwith. 	
	<p><u>Item No 46. Accessories (Qty = 1 Nos):</u></p>	

	The vendor need to supply all necessary accessories required for fixing the CCTV Cameras.	
	<p><u>Item No 47. CCTV for Contracts Department (Qty = 8 Nos):</u></p> <p>Specification :</p> <p>1. High Performance Colour Day-Night Fixed Dome IP Camera with</p> <p>i) Sensor:1/3 inch, type-CCD/CMOS. ii) Pixels 1280x720 minimum iii) Sensitivity 0.3 lux IR OFF and 0.0 lux IR ON. iv) Video resolution : 720p,480p,240p (configurable) v) Frame Rate:30 fps vi) Night Vision : Minimum 15 meter capability. vii) Lens type :Varifocal, auto iris with 3.3-12 mm lens viii) Audio : Line-in Line-out jack ix) Audio Compression : G.711 x) Camera Setup/Control Via Web browser xi) Camera to function on 230 VAC 50 Hz, necessary power adapter and surge protector must be supplied xii) Video compression H.264, MJPEG/MPEG. xiii) Ethernet 10-Base T/100 Base-TX, auto-sensing, half/full duplex,RJ45 xiv) Protocols: RTP, UDP, TCP, IP, HTTP, HTTPS, FTP, DHCP, IGMP, ICMP, SMTP, SNMPv1, RTSP, iSCSI, UPnP, IPv4, IPv6, QoS. xv) PoE : IEEE 802.3af Compliant xvi) Ingress Protection Rating:Standard-IP66,NEMA 4X xvii) Operating Temperature 0°C to 40°C xviii) Humidity : 0% to 90% or better xix) Mount : Suitable vandal resistant mount for wall and ceiling.</p> <p>Others:</p> <ul style="list-style-type: none"> * The quoted camera must be of ONVIF standard and have UL and FCC Certifications. * Camera Housing & Lens should be from the same OEM. * Enclosure (housing for cameras) must be vandal resistant * Camera housing(indoor/outdoor),Mount Adapter, Adds H/V adjustability Wall Mount for housing must be provided. * Ethernet surge protector for camera 	
	<p><u>Item No 48. Cables and Conduit (Qty = 1 Nos):</u></p> <p>The vendor need to supply all inter connecting cables, conduit required for the CCTV system.</p>	
	<p><u>Item No 49. 24 Port Switch (Qty = 1 Nos):</u></p> <p>Layer 3 Switch: Make: Cisco Model: Vendor must specify</p> <p>1. Minimum 24 nos. 1GE PoE, 2 nos. 10 GE SFP Uplink Ports</p>	

	<p>2. Switching Fabric: 80 Gbps minimum</p> <p>3. Forwarding Rate: 30 mpps minimum</p> <p>4. Cisco Feature set : In addition to IP Base and IP Services feature sets, the offered switch must also support advanced Layer 3 switching (IPv4 and IPv6) features.</p> <p>5. All SFP ports (2) to be populated with appropriate single mode transceivers.</p> <p>6. Appropriate SMARTNET service to be supplied alongwith.</p>	
	<p><u>Item No 50. Accessories (Qty = 1 Nos):</u></p> <p>The vendor need to supply all necessary accessories required for fixing the CCTV Cameras.</p>	
	<p><u>Item No 51. CCTV for IT Department (Qty = 7 Nos):</u></p> <p>Specification :</p> <p>1. High Performance Colour Day-Night Fixed Dome IP Camera with</p> <p>i) Sensor:1/3 inch, type-CCD/CMOS.</p> <p>ii) Pixels 1280x720 minimum</p> <p>iii) Sensitivity 0.3 lux IR OFF and 0.0 lux IR ON.</p> <p>iv) Video resolution : 720p,480p,240p (configurable)</p> <p>v) Frame Rate:30 fps</p> <p>vi) Night Vision : Minimum 15 meter capability.</p> <p>vii) Lens type :Varifocal, auto iris with 3.3-12 mm lens</p> <p>viii) Audio : Line-in Line-out jack</p> <p>ix) Audio Compression : G.711</p> <p>x) Camera Setup/Control Via Web browser</p> <p>xi) Camera to function on 230 VAC 50 Hz, necessary power adapter and surge protector must be supplied</p> <p>xii) Video compression H.264, MJPEG/MPEG.</p> <p>xiii) Ethernet 10-Base T/100 Base-TX, auto-sensing, half/full duplex,RJ45</p> <p>xiv) Protocols: RTP, UDP, TCP, IP, HTTP, HTTPS, FTP, DHCP, IGMP, ICMP, SMTP, SNMPv1, RTSP, iSCSI, UPnP, IPv4, IPv6, QoS.</p> <p>xv) PoE : IEEE 802.3af Compliant</p> <p>xvi) Ingress Protection Rating:Standard-IP66,NEMA 4X</p> <p>xvii) Operating Temperature 0°C to 40°C</p> <p>xviii) Humidity : 0% to 90% or better</p> <p>xix) Mount : Suitable vandal resistant mount for wall and ceiling.</p> <p>Others:</p> <p>* The quoted camera must be of ONVIF standard and have UL and FCC Certifications.</p> <p>* Camera Housing & Lens should be from the same OEM.</p> <p>* Enclosure (housing for cameras) must be vandal resistant</p> <p>* Camera housing(indoor/outdoor),Mount Adapter, Adds H/V adjustability Wall Mount for housing must be provided.</p> <p>* Ethernet surge protector for camera</p>	
	<p><u>Item No 52. Cables and Conduit (Qty = 1 Nos):</u></p> <p>The vendor need to supply all inter connecting cables, conduit required for the CCTV</p>	

	system.	
	<p><u>Item No 53. Accessories (Qty = 1 Nos):</u></p> <p>The vendor need to supply all necessary accessories required for fixing the CCTV Cameras.</p>	
	<p><u>Item No. 54. Supply of FRP box for I/C Power tapping (Qty = 94 Nos):</u></p> <p>Supply of polycarbonate flame resistant self extinguishing junction box with 25 A RCBO, 100mA with following specification:</p> <p>Junction box shall be simialr to Hensel make box model no. 9255 with dimension not less 200mm x 160mm x 98mm. Junction box shall be comprised of DIN rail channel for mounting RCBO/RCCB and Terminal block suitable for cable size upto 6 mmsq copper armoured cable.Box shall have self supporting arrangement for mounting on the pole,ie; pole shall have minimum diameter of 90 mm and maximum diameter shall be 150 mm. Box shall have minimum 4 nos. of knockout for cable entry in the bottom side.Box shall have ingress protection of IP65 for outdoor installation.Required number of cable gland made of polyamide shall be supplied. 25 A RCBO, 100mA shall be similar to legrand cat no. 6033 85 . Make of Junction box : Hensel or equivalent. Make of RCBO: Legrands/Schneider/Siemens /Havells. Bidder has to submit technical catalogue of offered make with detail specification along with the offer.</p>	
	<p><u>Item No. 55. Supply of FRP for O/G power tapping (Qty = 94 Nos):</u></p> <p>Supply of polycarbonate flame resistant self extinguishing junction box with 20 A DP MCB with following specification:</p> <p>Junction box shall be similar to Hensel make box model no. 9255 with dimension not less 200mm x 160mm x 98mm. Junction box shall be comprised of DIN rail channel for mounting RCBO/RCCB and Terminal block suitable for cable size upto 6 mmsq copper armoured cable. Box shall have self supporting arrangement for mounting on the pole,ie; pole shall have minimum diameter of 90 mm and maximum diameter shall be 150 mm. Box shall have minimum 4 nos. of knockout for cable entry in the bottom side.Box shall have ingress protection of IP65 for outdoor installation. Required number of cable gland made of polyamide shall be supplied. 20 A DP MCB shall be similar to legrand cat no. 6049 65. Make of Junction box : Hensel or equivalent. Make of MCB: Legrands/Schneider/Siemens/ Havells.</p>	
	<p><u>Item No. 56. Installation & Commissioning of Item no 71 (Qty = 1 AU):</u></p> <p>Installation & Commissioning of FRP Junction box with all accesories for Incoming power point from OIL's installations . The box shall be fixed into the existing pole or wall by means of clamp or screw of proper size. Termination of cable to the RCBO shall be done by using proper sized tinned copper lugs.</p>	
	<p><u>Item No. 57. Installation & Commissioning of Item no 72 (Qty = 1 AU):</u></p> <p>Installation & Commissioning of FRP Junction box with all accessories near the camera/UPS point for providing power to these. The box shall be fixed into the existing pole or wall by means of clamp or screw of proper size. Termination of cable to the MCB shall be done by using proper size lugs.</p>	

	<p><u>Item No. 58. 3 core 4 mmsq Copper PVCA cable (Qty = 4000 Metres):</u></p> <p>"Supply of 3 core 4 mmsq Copper PVCA cable for power supply arrangement with following specification: i) No of core : 3 ii) Size: 4 mmsq iii) Conductor: Copper. Cable shall be stranded copper conductor suitable for 1100 volts, PVC insulated, covered with inner sheath of either extruded regenerated rubber or plastic tapes, galvd. tape/wire armoured with PVC outer sheath overall, conforming to IS: 1554-1976 (Part-I). The cable must bear voltage grade, size, manufacture name & IS marking/monogram embossed on the outer surface. Make : ""NICCO/ASIAN/CRYSTAL/UNIVERSAL/CCI/RPG/INCAB/POLYCAB/ANKUR/NECAB"". Bidder shall submit technical details of offered make of cable along with the offer."</p>	
	<p><u>Item No. 59. 3 core 6 mmsq Copper PVCA cable (Qty = 7500 Metres):</u></p> <p>"Supply of 3 core 6 mmsq Copper PVCA cable for power supply arrangement with following specification: i) No of core : 3 ii) Size: 6 mmsq iii) Conductor: Copper. Cable shall be stranded copper conductor suitable for 1100 volts, PVC insulated, covered with inner sheath of either extruded regenerated rubber or plastic tapes, galvd. tape/wire armoured with PVC outer sheath overall, conforming to IS: 1554-1976 (Part-I). The cable must bear voltage grade, size, manufacture name & IS marking/monogram embossed on the outer surface. Make : ""NICCO/ASIAN/CRYSTAL/UNIVERSAL/CCI/RPG/INCAB/POLYCAB/ANKUR/NECAB"". Bidder shall submit technical details of offered make of cable along with the offer."</p>	
	<p><u>Item No. 60. Installation & Comm of cable (Qty = 1 AU):</u></p> <p>Installation and commissioning of following sizes of cables in the burried cable trench. Size of cable: i) 3 x 4 mmsq PVCA copper cable ii) 3 x 6 mmsq PVCA copper cable "Supply and laying of 3"(80 mm) dia , minimum wall thickness 3.6mm, GI pipe in normal soil, complete with GI fittings, including trenching (75 cm deep) and re-filling with earth etc. as required and laying of cable through the pipe Cable laying procedure: UG Cable laying in GI pipe, pipe buried in soft soil in trench: a) The normal size of the trench will be 45 cms. wide and depth of 75 cms. The bottom of the trench must be levelled and properly dressed. b) Laying of 3" GI pipe in the trench. c) 3" GI pipe will be connected each other by means of socketing. c) Drawing of cables through the GI pipe. d) After drawing cables through the pipe, the trench shall be filled back with earth (cut earth from the trench) and rammed properly.</p> <p>For laying of cables through GI pipe in underground trench bidder has to quote for per metre installation of cable. Payment will be made based on actual running metre.</p>	
	<p><u>Item No. 61. 9 Mtrs Pole (Qty = 120 Nos):</u></p> <p>Supply of 9 mtr step pole. Pole has the following specification: STEEL TUBULAR</p>	

	<p>POLES FOR OVERHEAD cable stringing 9 mtrs Long Steel Tubular Poles, Swaged type conforming to IS: 2713 (Part-I&II)-1980 with the following specifications:</p> <ol style="list-style-type: none"> 1) Designation: 410 SP-30 2) Material of construction: Conforming to grade Yst 240 of IS:1161-1979 3) Corrosion Protection: Pole planting depth should be coated with Bituminous paint as per IS: 1580-1968 and rest of the Pole length be painted with 1(one) coat of red #oxide primer as per IS: 2074-1979 and also one coat of olive green paint above the primer. 4) Earthing Arrangement: Each Pole should be provided with a through hole of 14mm diameter at a height of 300 mm above the planting depth. 5) Base Plate: Mild steel Base plate of 300mmx300mmx6mm size should be welded to the bottom of the each Pole as per IS: 2713. 6) Tests and test certificates: Tests as per IS: 2713, 228 (for sulphur & phosphorus content), 1894 (for finished poles) should be carried out on the Poles and relevant certificates should be sent along with the materials. 7) Markings: Pole designation, manufacturers identifications mark and year of manufacture should be mark on each Pole as per IS: 2713. <p>Bidder shall submit technical details of offered make of pole along with the offer."</p> <p>We have given requirement for 120 nos. of poles. As at this stage the exact nos. of poles cannot be ascertained, bidder has to quote for 120 nos. of poles with the scope for provision for supply of 20% additional nos., i.e., 24 nos., at the same price and terms and conditions in case requirement for the additional poles arises.</p> <p>Bidder may visit sites at Duliajan and assess the requirement with prior intimation to OIL.</p>	
	<p><u>Item No. 62. Installation & Commissioning of Poles (Qty = 1 AU):</u></p> <p>Installation & Commissioning: Planting depth of poles shall be 1.8 metre for 9 metre long pole. The planting depth of the pole shall be as per DSR 11.3, 2012 and with cement concreting for base 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.</p>	
	<p><u>Item No. 63. Supply of stay set complete (galvanised) (Qty = 50 Nos):</u></p> <p>Supply of stay set complete (galvanised) with 19/20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm, thimble, stay clamps, bow tightener, 3/8" SWG G.I. stay wire</p>	
	<p><u>Item No. 64. Installation & Comm Stay set (Qty = 1 AU):</u></p> <p>Stay set shall be fixed with the pole and anchor plate shall be placed underground after excavation and refilling etc. as required.</p>	
	<p><u>Item No. 65. Supply of 6/16 A combined Modular S/Soc (Qty = 140 Nos):</u></p> <p>Supply of suitable size Modular box with modular plate and cover in front on surface , including providing and fixing one number 5 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required. Make of Modular item ::Legrand/L&T/MK/Scheider/Crabtree/ Indo-Asian</p>	

	Note: This item will be used for giving power supply to outdoor type CCTV.	
	<p><u>Item No. 66. Installation & Comm S/S (Qty = 1 AU):</u></p> <p>Installation & Commissioning of switch socket on power outgoing FRP box or location instructed by concern Engineer in charge.</p>	
	<p><u>Item No. 67. Supply of 2" GI pipe (Qty = 1000 Metres):</u></p> <p>2" GI pipe for cable entry.GI pipe shall be fixed on the pole where cable shall be taking in and taking out to/from the cable trench. Cable shall be passed through the GI pipe and entered in the trench and out of the trench through the pipe. Pipe shall be attached with the pole by using clamp with nut & bolts. Make of GI pipe:Tata/jindal</p>	
	<p><u>Item No. 68. Installation & Comm of GI pipe (Qty = 1 AU):</u></p> <p>Installation of commissioning of GI pipe per metre. GI pipe shall be attached with the pole as a Guard pipe by using clamp with nuts & bolts.Pipe shall carry the incoming/outgoing cable from trench to pole. Payment will be based on actual per metre.</p>	
	<p><u>Item No. 69. Installation commissioning of O/H Cable (Qty = 1 AU):</u></p> <p>Stringing of 3x4 mmsq and 3 x 6 mmsq Cu PVCA cable with 6 SWG GI wire as catenary with the cable where overhead stringing of cable is required. GI wire and the 3x4 mmsq and 3 x 6 mmsq Cu PVCA shall be bound by using binding wire and wrapped with black adhesive tape.Binding shall be done in the cable with GI wire at regular intervals of 0.75 m. Binding distance shall be uniform for entire length of cable. Binding shall be tight to carry the load of cable during stringing. Stringing of cable shall be done from one pole to another and carried on if required.All materials required for stringing of cables will be supplied by party.</p>	
	<p><u>Item No. 70. Power circuit wiring (Qty = 1000 Metres):</u></p> <p>Circuit wiring: Supply of all materials and wiring of power circuit from RCBO to 5/16 A Modular switch socket for termination point of UPS/CCTV with 3 x 4.0 mm² single core PVC insulated FRLS copper cable 1100 V grade including earthing (identical size phase, neutral and earth wires, colour coded red, black and green respectively) in Medium grade PVC casing capping/conduit in recessed/surface. Wiring for the switch socket shall be considered as actual running metre. Make of cable: Finolex/ Havells/ AKG or other brands approved by departmental engineer. make of casing capping : AKG/ Plaza/ Presto Plast. Other brands shall have to be approved by departmental engineer. Payment will be given in actual running metre.</p>	
	<p><u>Item No. 71. Supply of 4 Module Board (Qty = 40 Nos):</u></p> <p>Supply of 4 module Modular switch board with one 16 A switch, one 16 A Socket and all materials. Placing of boards shall be true vertical and horizontal and at correct height. Make of Modular board: Legrand/L&T/MK/Crabtree/ Indo-Asian or other make approved by departmental engineer . Note: This item included one 16 A switch ,16 A switch socket and 4 module box ,plate</p>	

	with front plate. This items will be used for giving power supply to internal CCTV.	
	<p><u>Item No. 72. Installation & Comm of 4 Module board (Qty = 1 AU):</u></p> <p>Installation & Commissioning of 4 module board including inside connection for 16 A modular switch socket on brick wall by means of adequate number (min. 4 nos.) of screws embedded into wall holes are to be drilled in wall and filled up with approved type of plastic gutka/rowl plug to receive screws).</p>	
	<p><u>Item No. 73. Supply of 20 A RCBO with enclosure (Qty = 40 Nos):</u></p> <p>Supply and wiring of Incomer/Isolator RCBO (2 pole, 20 A, 100 mA, 10 kA), with all accessories. Make of RCBO and enclosure: Siemens/Legrand/Schneider/Indo Asian/Havells.</p>	
	<p><u>Item No. 74. Installation & Comm of RCBO (Qty = 1 AU):</u></p> <p>Installation & Commissioning of RCBO. RCBO shall be enclosed in a 2 pole enclosure and fixed on the frame or wall with minimum four screws. Connection shall be made from the incomer cable to incoming side of RCBO with proper sized aluminium lug/thimble.</p>	
	<p><u>Item No. 75. Supply of RCBO (Qty = 20 Nos):</u></p> <p>Supply of Incomer/Isolator RCBO (2 pole, 20 A, 100 mA, 10 kA), with all accessories. Make of RCBO and enclosure: Siemens/Legrand/Schneider/Indo Asian/Havells.</p>	
	<p><u>Item No. 76. Supply of DP MCB (Qty = 20 Nos):</u></p> <p>Supply of Isolator MCB (2 pole, 20 A, 10 kA,C curve). Make of MCB: Siemens/Legrand/Schneider/Indo Asian/Havells/L&T.</p>	
	<p><u>Item No. 77. Supply of FRP box (Qty = 20 Nos):</u></p> <p>Supply of polycarbonate flame resistant self extinguishing junction box with following specification: Junction box shall be simialr to Hensel make box model no. 9255 with dimension not less 200mm x 160mm x 98mm. Junction box shall be comprised of DIN rail channel for mounting RCBO/RCCB and Terminal block suitable for cable size upto 6 mmsq copper armoured cable. Box shall have self supporting arrangement for mounting on the pole,ie; pole shall have minimum diameter of 90 mm and maximum diameter shall be 150 mm. Box shall have minimum 4 nos. of knockout for cable entry in the bottom side. Box shall have ingress protection of IP65 for outdoor installation. Required number of cable gland made of polyamide shall be supplied. Make of Junction box : Hensel or equivalent. Bidder has to submit technical catalogue of offered make with detail specification along with the offer.</p>	
	<p><u>Item No. 78. Warranty 3 years (Qty = 1 AU):</u></p> <p>Warranty Terms:</p>	

	<ol style="list-style-type: none"> 1. Minimum 3 (three) years onsite warranty must be provided for the entire solution after successful commissioning of the entire solution to the acceptance by OIL as described in Delivery, Installation and Commissioning terms. 2. Warranty has to cover all equipment, including power devices and batteries, supplied by the successful bidder, OFC LAN, workmanship of any equipment-fixing work carried out by successful bidder. 3. During the warranty period, any defective device shall have to be replaced with a new one within 48 hours of reporting the failure. Necessary configuration of the replacement device for proper operation of the device in the said Security Surveillance system is the responsibility of the successful bidder. Bidder is responsible for maintaining the OFC LAN used to connect the cameras to the control room during warranty period. 4. During the warranty period, the engineer attending the call shall have to submit a call report mentioning nature of the fault, action taken, any replacement of parts, serial no. of replaced equipment, and serial number of replacement equipment and any other details of the call to OIL. The report has to be duly signed by OIL's personnel and then only the call shall be considered attended. 5. Location of the cameras may need to be shifted during warranty period as per OIL's requirement. 6. OIL may add new areas under surveillance during the warranty period. 7. Cost of all visits (including transport to and from Duliajan and accommodation at Duliajan) by bidder's personnel for Warranty related work shall have to be borne by the successful bidder. 8. The successful bidder has to place one service engineer and two technicians on a full-time basis at Duliajan during the warranty period. In case OIL reports that the services of the stationed engineer/technician are not satisfactory, the successful bidder must replace him/ her within one week of the report. The engineer/technician will have to be available from 7 am to 3.30 pm on weekdays (Mon-Fri), 7 am to 11 am (Sat) and otherwise on call. 9. The successful bidder must maintain a critical spares inventory as per the attached list. This inventory must be replenished within 3 weeks of consumption. 10. In case warranty obligations are not fulfilled (specific to the two control rooms and all equipment therein) by the successful bidder for a period of 15 days or more, the warranty period of the entire solution will be extended by a pro-rata duration at no extra cost to OIL. 	
	<p><u>Item No. 79. Annual Maintenance Services for 4 years (AMS), Qty = 1 AU:</u></p> <ol style="list-style-type: none"> 1. All equipment supplied by the successful bidder will be covered by the Annual Maintenance Service, including UPS and batteries. 2. The Annual Maintenance Services shall start after successful completion of the warranty period. 3. For any reason, if the warranty period is extended, AMS shall start after completion of the extended warranty period. 4. The AMS shall run for a period of four (4) years. 5. During the AMS period, any defective device shall have to be replaced with a new one of the same make and same/equivalent model immediately. Necessary configuration of the replacement device for proper operation of the device in the said Security Surveillance system is the responsibility of the successful bidder. 6. During the AMS period, the engineer attending the call shall have to submit a 	

call report mentioning nature of the fault, action taken, any replacement of parts, serial no. of replaced equipment, and serial number of replacement equipment and any other details of the call to OIL. The report has to be duly signed by OIL's personnel and then only the call shall be considered attended.

7. The successful bidder has to place one service engineer and two technicians on a full-time basis at Duliajan during the AMS period. In case OIL reports that the services of the stationed engineer/technician are not satisfactory, the successful bidder must replace him/ her within one week of the report. The engineer/technician will have to be available from 7 am to 3.30 pm on weekdays (Mon-Fri), 7 am to 11 am (Sat) and otherwise on call.

8. The successful bidder must maintain a critical spares inventory as per the attached list. This inventory must be replenished within 15 days of consumption. After the completion of the AMS period, all these spares will become the property of OIL.

Price Breakup:

Bidders should submit the price breakup of all the items as per “Annexure HHH” which has been uploaded under “Notes & Attachments” > “Attachments” as shown below. The price breakup “Annexure HHH” should be filled up, signed and uploaded under “Notes & Attachments” > “Attachments” only. **The filled up price breakup of all the items should not be uploaded in Technical RFX Response folder as it shall lead to rejection of the offer as per Bid Rejection Criteria.**

The screenshot displays the 'RFX - Oil India Ltd e-Procurement System' interface. The 'Attachments' section is active, showing a table with the following data:

Assigned To	Category	Description	File Name	Version	Processor	Visible Internally only	Checked Out	Type	Size (KB)	Chk
Document Header	Standard Attachment	Price Breakup Annex HHH	Price Breakup Annex HHH.pdf	1				SSIG	70	200

A callout box on the right side of the screenshot points to the 'Price Breakup Annex HHH' attachment, stating: 'Area for uploading price breakup'.

Delivery, Installation and Commissioning:

1. The successful bidder has to deliver the material at OIL, Duliajan within 75 days from the date of issue of confirmed order by OIL.
2. All active components supplied should be tested off-line i.e. before being placed at actual locations, (As per connectivity diagram given in this tender document) for

	<p>conformation to specifications within 30 days of delivery at Duliajan. Warranty of all supplied equipment will start after the successful testing and acceptance.</p> <p>3. Installation and commissioning of the Security Surveillance system has to be completed in all respects as follows:</p> <p>Phase-I =</p> <p>Control Room zone and DS-7 (Zaloni Club) zone within 150 days from the date of order.</p> <p>Phase-II =</p> <p>Remaining zones including indoor locations (Materials, Contracts, IT and Civil Engineering departments) within 240 days from the date of order.</p> <p>4. However, for mobile drilling locations, installation of the system will have to be carried out whenever the drilling site is ready for the same.</p> <p>5. All items must be delivered in good condition. Damaged/ defective items must be replaced immediately.</p>	
	<p><u>Penalty Terms:</u></p> <p>1. During the AMS/Warranty period, any failed device shall have to be repaired/ replaced with a new/ standby device within 48 hours of reporting the failure. In case of failure on the part of the successful bidder to rectify the problem within 48 hours of reporting it, following penalties will be applicable:</p> <p>" Rupees 1000.00 per device per day (for devices located outside the control rooms)</p> <p>" Rupees 5000.00 per day (for any control room failure)</p> <p>2. Absence of service engineer/technician:</p> <p>" Rupees 1000.00 per day per engineer/technician.</p> <p>3. However, total penalty during the year of the AMS period will not exceed 15% of the annual charges.</p> <p>4. Total penalty charges during warranty period of 3 years will not exceed 5% of the total material cost of the PO (held with OIL - Refer payment terms)</p>	
	<p><u>Payment Terms:</u></p> <p>1. 70% of total material cost will be paid to the successful bidder on delivery of material at Duliajan</p> <p>2. 15% of material cost will be paid after successful installation and commissioning of Phase-I and at least 5 mobile locations, along with 60% of installation and commissioning charges for township.</p> <p>3. 10% of material cost will be paid after successful installation and commissioning of Phase-II and remaining mobile locations and indoor departmental locations, along with 40% of installation and commissioning charges for township and 100% of installation and commissioning charges for departments.</p> <p>4. 5% of material cost will be paid after successful completion of warranty period.</p> <p>5. In case the successful bidder is unable to complete installation and commissioning within the defined period, because of OIL not being able to provide site-readiness, the balance 25% of material cost for that site will be paid by OIL on submission of relevant invoices by the bidder to Materials Department.</p> <p>6. The vendor must submit quarterly invoices for the AMS charge for the preceding period to Head-Security. The invoice must clearly mention the OIL PO No. and period of billing.</p>	
	<p><u>APPENDIX-IX:</u></p>	

CLAUSES GENERAL HEALTH, SAFETY AND ENVIRONMENTAL (HSE) ASPECTS

1. It will be solely the parties responsibility to fulfill all the legal formalities with respect to the Health, Safety and Environmental aspects of the entire job (namely; the person employed by him, the equipment, the environment, etc.) under the jurisdiction of the district of that state where it is operating. Ensure that all sub-bidders hired by him comply with the same requirement as the party himself and shall be liable for ensuring compliance all HSE laws by the sub or sub-sub bidders.
2. Every person deployed by the party/supplier in a mine must wear safety gadgets to be provided by the party. The party/supplier shall provide proper Personnel Protective Equipment as per the hazard identified and risk assessed for the job and conforming to statutory requirement and Company PPE schedule. Safety appliances like protective footwear, Safety Helmet and Full Body harness has to be DGMS approved. Necessary supportive document shall have to be submitted as proof. If the party fails to provide the safety items as mentioned above to the working personnel, the party may apply to the Company for providing the same. Company will provide the safety items, if available. But in turn, Company will recover the actual cost of the items by deducting from Bidder's Bill. . However, it will be the party's sole responsibility to ensure that the persons engaged by him in the mines use the proper PPE while at work. All the safety gears mentioned above are to be provided to the working personnel before commencement of the work.
3. The party shall prepare written Safe Operating Procedure (SOP) for the work to be carried out, including an assessment of risk, wherever possible and safe methods to deal with it/them. The SOP should clearly state the risk arising to men, machineries & material from the mining operation / operations to be done by the party and how it is to be managed.
4. The party shall provide a copy of the SOP to the person designated by the mine owner who shall be supervising the party's work.
5. Keep an up to date SOP and provide a copy of changes to a person designated by the Mine Owner/Agent/Manager.
6. Party has to ensure that all work is carried out in accordance with the Statute and SOP and for the purpose he may deploy adequate qualified and competent personnel for the purpose of carrying out the job in a safe manner. For work of a specified scope/nature, he should develop and provide to the mine owner a site-specific code of practice in line.
7. It will be entirely the responsibility of the party/party's Supervisor/representative to ensure strict adherence to all HSE measures and statutory rules during operation in Company's installations and safety of workers engaged by him. The crew members will not refuse to follow any instruction given by company's Installation Manager / Safety Officer / Engineer-in-charge / Official / Supervisor/Junior Engineer-in-charge for safe operation.
11. Any compensation arising out of the job carried out by the party whether related to pollution, Safety or Health will be paid by the party only.
12. Any compensation arising due to accident of the party's personnel while carrying out the job, will be payable by the party.
13. The party shall have to report all incidents including near miss to Installation Manager / departmental representative of the concerned department of Company.
14. The party has to keep a register of the persons employed by him/her. The party's supervisor shall take and maintain attendance of his men every day for the work,

<p>punctually.</p> <p>15. If the Company arranges any safety class / training for the working personnel at site (company employee, Bidder worker, etc) the party will not have any objection to any such training.</p> <p>16. The health checkup of party's personnel is to be done by the party in authorized Health Centers as per Company's requirement & proof of such test(s) is to be submitted to Company. The frequency of periodic medical examinations should be every five years for the employees below 45 years of age and every three years for employees of 45 years of age and above.</p> <p>17. To arrange daily tool box meeting and regular site safety meetings and maintain records.</p> <p>18. Records of daily attendance, accident report etc. are to be maintained in Form B, E, J (as per Mines Rules 1955) by the party.</p> <p>19. A supplier/ party's employee must, while at work, take reasonable care for the health and safety of people who are at the employee's place of work and who may be affected by the employee's act or omissions at work.</p> <p>20. A party's/supplier employee must, while at work, cooperate with his or her employer or other persons so far as is necessary to enable compliance with any requirement under the act or the regulations that is imposed in the interest of health, safety and welfare of the employee or any other person.</p> <p>22. Party's/supplier arrangements for health and safety management shall be consistent with those for the mine owner.</p> <p>23. In case party/supplier is found non-compliant of HSE laws as required company will have the right for directing the party/supplier to take action to comply with the requirements, and for further non-compliance, the party/supplier will be penalized prevailing relevant Acts/Rules/Regulations.</p> <p>24. When there is a significant risk to health, environment or safety of a person or place arising because of a non-compliance of HSE measures Company will have the right to direct the party/supplier to cease work until the non-compliance is corrected.</p> <p>25. The party/supplier should prevent the frequent change of his contractual employees as far as practicable.</p> <p>26. The party/supplier should frame a mutually agreed bridging document between Company & the party/supplier with roles and responsibilities clearly defined.</p> <p>27. For any HSE matters not specified in the contract document, the party/supplier will abide the relevant and prevailing Acts/rules/regulations/ pertaining to Health, Safety and Environment.</p>	
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NOTE:

Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the NIT terms and conditions of NIT.

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FIXED AND PTZ CAMERA LOCATION DETAILS LIST

SL.NO.	LOCATION	Connecting From	Distance from the connecting point (mtr)	No. Of points for CCTV	
				Fixed	PTZ
1	SECURITY OFFICE GATE	Control Room	120		1
2	INSIDE B-LANE NEAR QTR NO. B165/B186	From Hostel 4 Pole JB	100	1	
3	NEW HOSTEL NEAR W-57(HOSTEL-4)	From INSIDE B-LANE NEAR QTR NO. B165/B186 Pole JB	120		1
4	FIELD COMMUNICATION	From Outdoor junction box nare NFT office	100		1
5	CONTRACT OFFICE	From Field Comm Pole JB	50	1	
6	NEF OFFICE	From Control Room	150	1	
7	PIPELINE FIELD OFFICE	From Contract Office Pole JB	100		1
8	PACHIM ZALONI L.P. SCHOOL	From Pipeline field Pole JB	50	1	
9	HOSTEL 4	From outside Pachim Zaloni LP Pole JB	50		1
10	PIPAL TAL CROSSING	From ER Pole JB	150	2	1
11	POLICE STATION	From (10) Junction box	150		1
12	BOILER BATTERY (UPCOMING BUS TERMINAL)	From Police Station Pole JB	100		1
13	UNION OFFICE GATE	From LAND/DISASTER CONTROL Pole JB	130		1
14	LAND/DISASTER CONTROL	From (10) Junction box	175	1	
15	EMPLOYMENT RELATION OFFICE	From Control Room	200		1

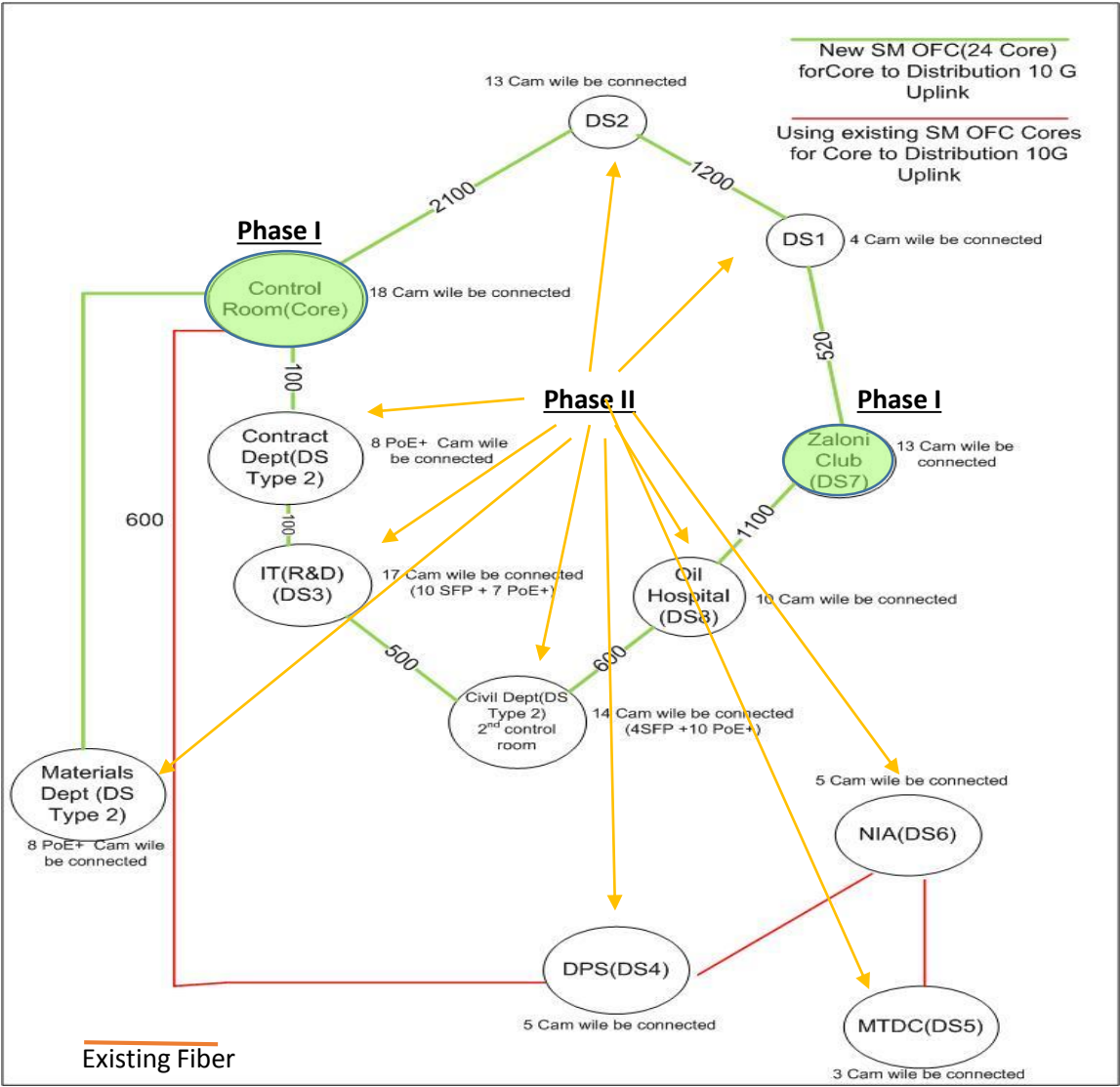
16	IT(R&D Bldg)	From IT(R&D Bldg)	200		3
17	UBI BANK CROSSING	From IT(R&D Bldg)	150		1
18	OIL MARKET	From Outdoor Junction box near narlet & old bus stand	410	2	2
19	NEAR ALLAHBAD ATM (FANCY BAZAR)	From Outdoor Junction box near narlet & old bus stand	150		1
20	STATE BANK OF INDIA, DULIAJAN	From NEAR ALLAHBAD ATM Pole JB	200	1	
21	DPS SCHOOL MAIN GATE	From DPS existing building	230	1	
21(a)	Shift Bus Stand	From DPS SCHOOL MAIN GATE Pole JB	800		1
22	DPS FRONT SIDE TEACHER'S COLONY GATE)	From DPS existing building	150	1	
23	PRIVATE BUS STAND (NEW)	From Outdoor Junction box near DSP	350		1
24	HUKUTA CHARIALI	From PRIVATE BUS STAND (NEW) Pole JB	150		1
25	CENTRAL SCHOOL	From MTDC	200	1	
26	MTDC	From MTDC eisting building	500	1	1
27	CMT OFFICE	From existing NIA Building	300		1
28	NIA	From existing NIA Building	500	2	2
29	BIHUTOLI	From Outdoor Junction box near DPS	320		1
30	OIL HIGHER SECONDARY SCHOOL, DULIAJAN	From OIL HIGHER SECONDARY CROSSING Pole JB(31)	120	1	
31	OIL HIGHER SECONDARY CROSSING	from Nehru maidan (40)	230		1
32	OIL HOSPITAL	From Civil Dept new SM Fiber 600 mrt + 200 Mtr for cameras	800	2	2
33	D+, HOSPITAL FRONT SIDE COVERING NURSE HOSTEL	From inside Hospital	150		1

34	B TYPE PUJA MANDAP	from Outdoor Junction Box near Dhuliajan Club tinali	330		1
35	W-77 PIPE YARD	From INSIDE B-LANE NEAR QTR NO. B165/B186(2) Junction Box	430		1
36	ST XAVIERS SCHOOL	From Junction Box between (53) & (67)	350	1	
37	HELIPAD	From NEAR NEHRU MAIDAN WATER TANK Pole JB (38)	400		1
38	NEAR NEHRU MAIDAN WATER TANK	From Zaloni club(42)	350		1
39	DULIAJAN CLUB TINIALI	From inside Hospital (DS)	530		1
40	NEHRU MAIDAN	from Outdoor Junction Box near Dhuliajan Club tinali	180		1
41	Tiny Tot School	From ZALONI CLUB Pole JB	150	1	
42	ZALONI CLUB	From Hospital new SM Fiber 1100 mtr + 200 extra for local camera connection	1300	1	1
43	F-1 GUEST HOUSE	From Zaloni club (42) Pole JB	100		1
44	F-14/F-16	From outside F-1 Guest House(43) Pole JB	300		1
45	MAIN GUEST HOUSE	From outside F-14/F-16 (44)Pole JB	120		1
46	PERCY EVANS GUEST HOUSE	From outside main guest house(45) Pole JB	100		1
47	MAHIRSHI BALMIKI MANDIR GATE-1	From MAHIRSHI BALMIKI MANDIR GATE-2 (48) Pole JB	350	1	
48	MAHIRSHI BALMIKI MANDIR GATE-2	From midpoint of 43-44 placing uderground fiber junction box	390	1	
49	DZ ENTRY POINT	From OLD TSK EXIT GATE(51) Pole JB	300		1
50	UPCOMING GIRLS HOSTEL NEAR DZ	From DZ ENTRY POINT(49)Pole JB	365		1
51	OLD TSK EXIT GATE	From DD END POINT(52)Pole JB	290		1

52	DD END POINT	From Outdoor Junction Box near colony DS	100		1
53	APPROCH POINT OF DX	From Outdoor Junction Box between control room and distribution switch uplink	20		1
54	DX MARKET POINT	From Outdoor Junction Box between control room and distribution switch uplink	120		1
55	DX TDX MIDDLE POINT	From DS near DX TDX MIDDLE POINT(55)	30		1
56	NEW TD+ END POINT	From DX TDX MIDDLE POINT(55) Pole JB	300		1
57	BX WATER TANK	From TD+FIELD (60) Pole JB	900		1
58	BX EXIT GATE	From BX WATER TANK (57)Pole JB	220		1
59	NEAR BX+ 1-12 SIGN BOARD	From BX EXIT GATE(58) pole JB	350		1
60	TD+FIELD	From Outdoor junction Box	160		1
61	BOTANICAL GARDEN END POINT	From Outdoor junction Box	430		1
62	CHILDREN PARK CROSSING	FromAX CORNER(64) Pole JB	330		1
63	CRPF CAMP	From Outdoor junction Box	150		1
64	AX CORNER	From BOTANICAL GARDEN END POINT(61) Pole JB	280		1
65	CT END POINT	From Outdoor OFC Junction Box between (62) and (63)	250		1
66	ASSAM PUBLIFC SCHOOL	From Outdoor OFC Junction Box between (60) and (61)	400	1	
67	MONALI RESTRURENT POINT	From DS near DX TDX MIDDLE POINT(55)	320		1
68	Distribution Point 1	From Zaloni Club new ofc sm	520		
69	Distribution Point 2	From Distribution Point 1 new ofc sm& from control room	3300		

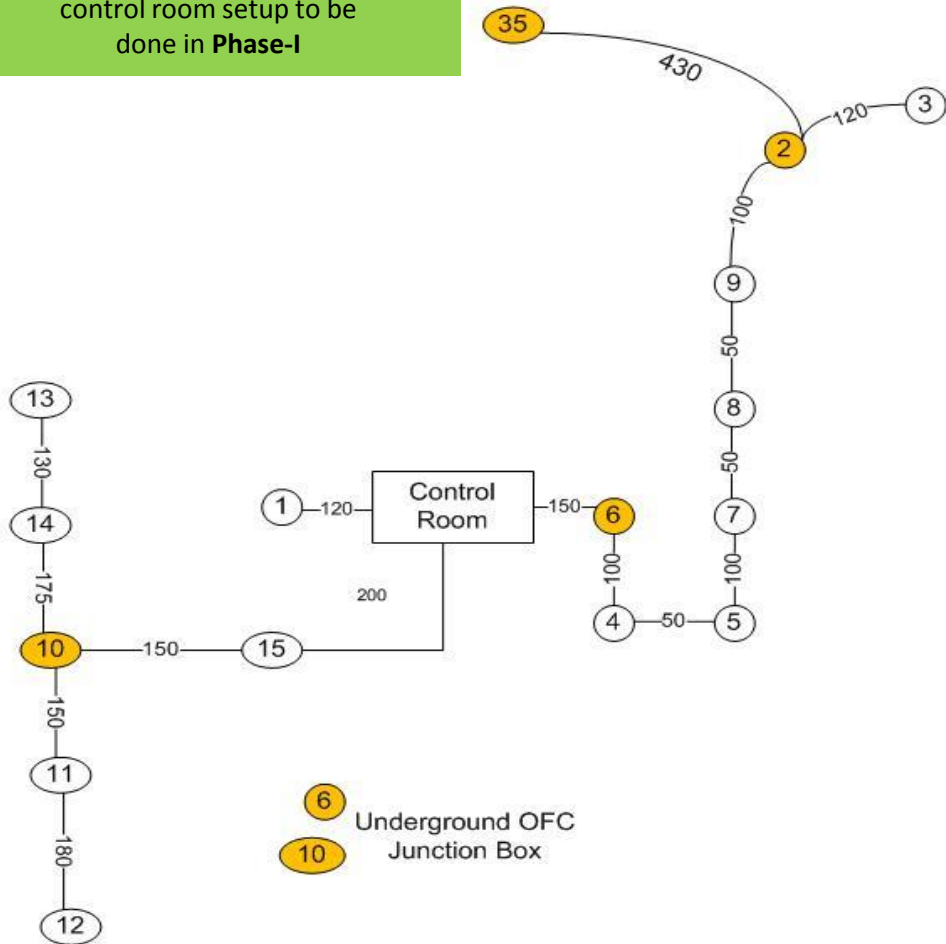
70	Materials Dept Type 2 Distribution	From UNION OFFICE GATE pole JB	600	8	
71	Contract Dept Type 2 Distribution	From Controm Room	150	8	
72	Civil Dept Type 2 Distribution	From Contract Dept	500	10	4
73	IT(R&D Bldg) Type 2 Distribution	Mention at S/N 16		7	
74	15 Remote Drilling Sites	Via VSAT/Wireless	N/A		15
TOTAL			23420	58	77

Overall layout showing all the Zones with Distribution Points (DS)



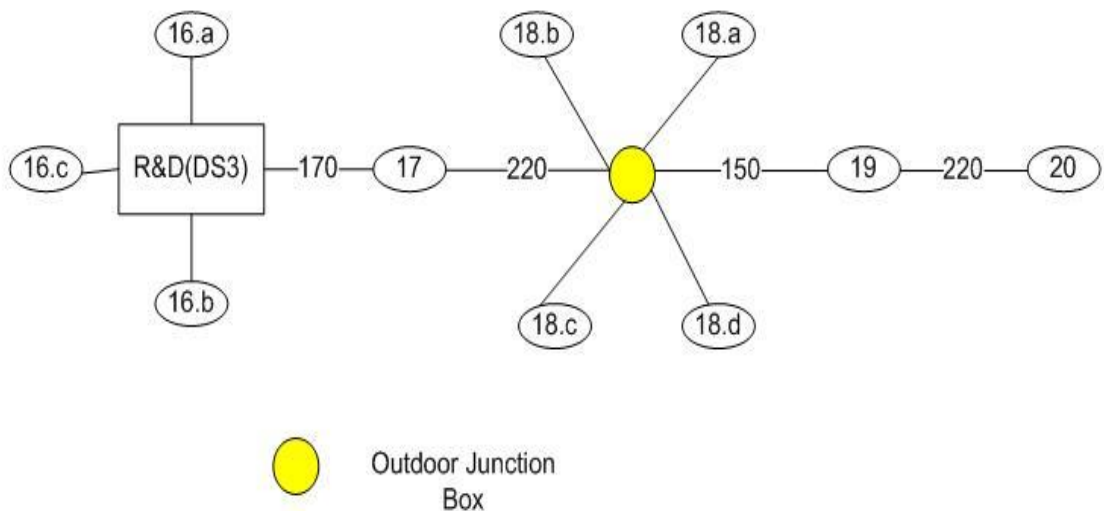
Control Room Zone

All the camera locations including the connections to control room and control room setup to be done in **Phase-I**



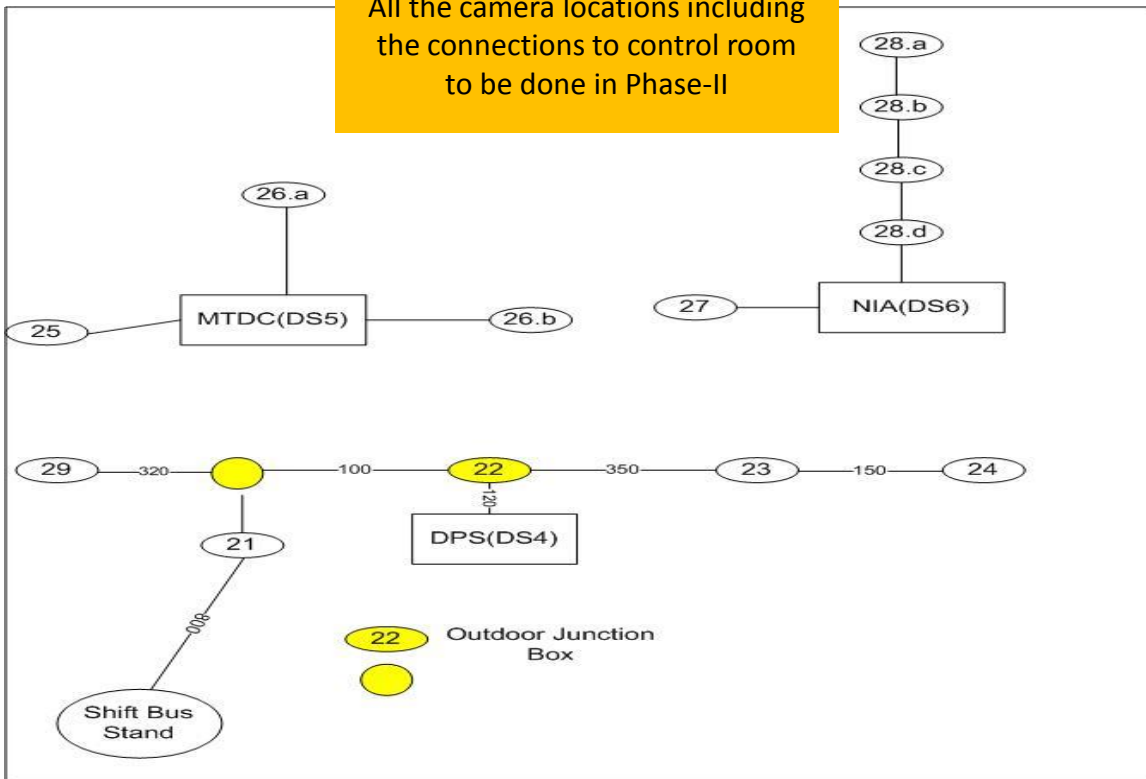
R & D (DS-3) Zone

All the camera locations including the connections to control room to be done in **Phase-II**



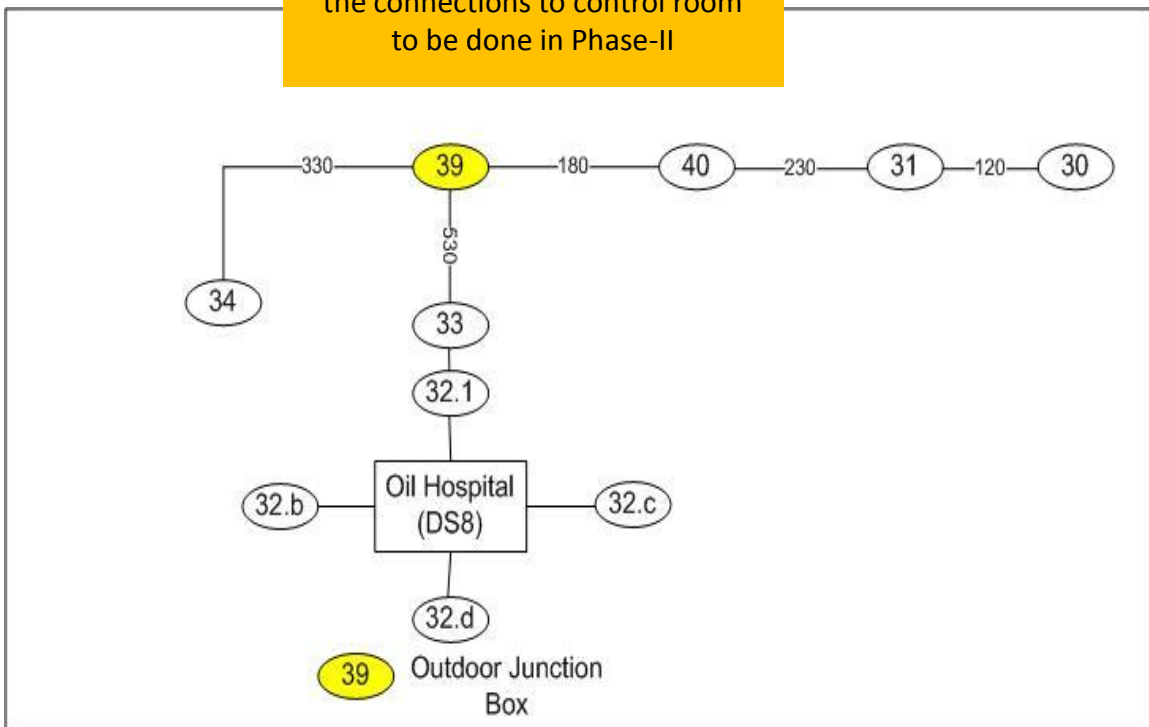
DS-4, 5 & 6 Zone

All the camera locations including the connections to control room to be done in Phase-II

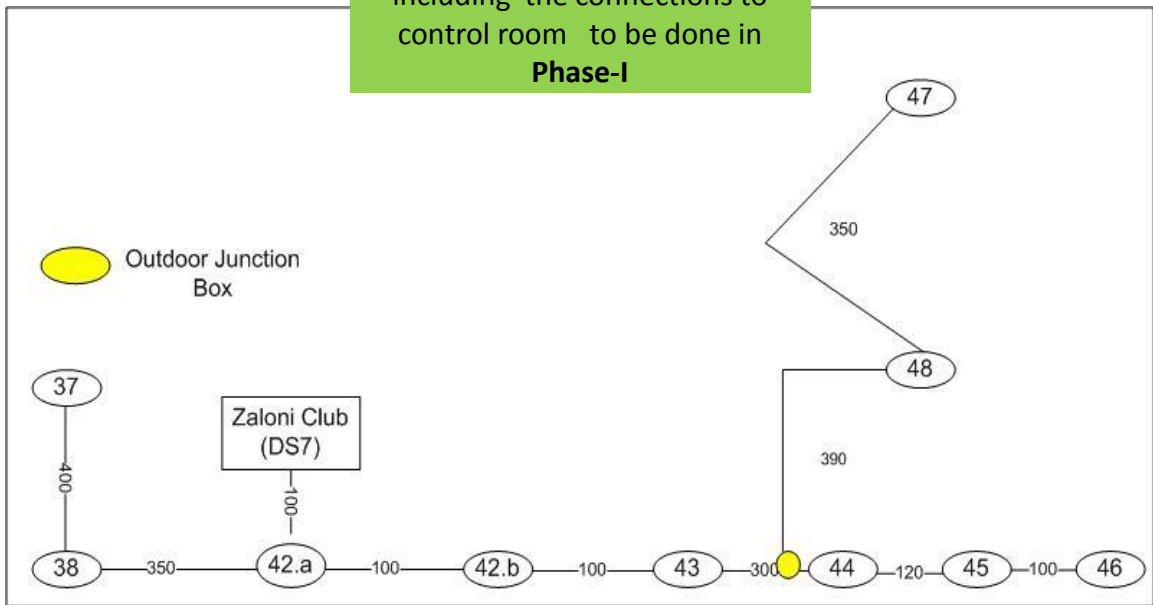


OIL Hospital (DS-8) Zone

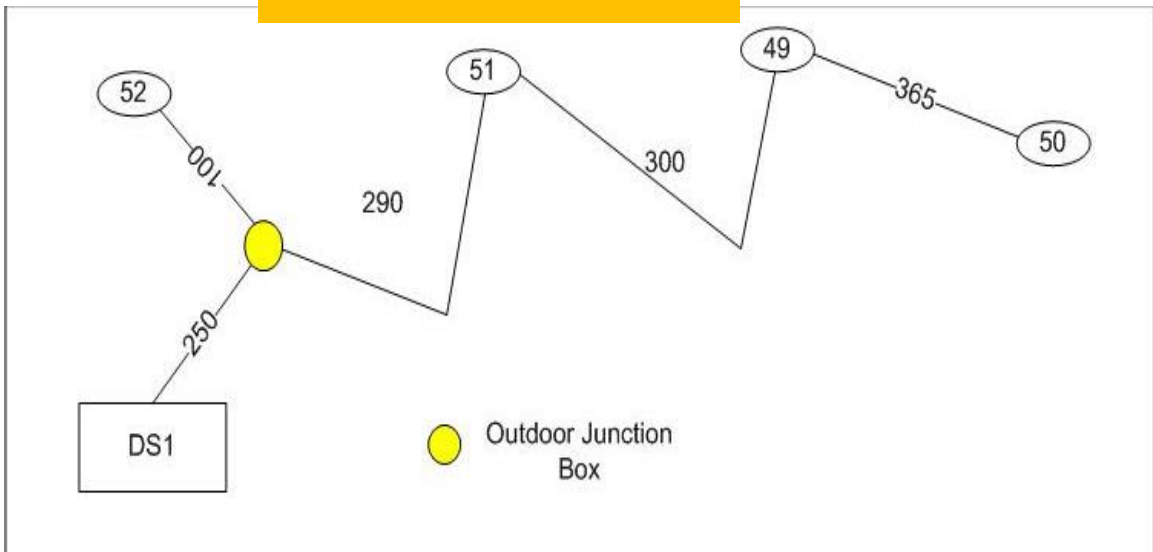
All the camera locations including the connections to control room to be done in Phase-II



Zaloni Club (DS-7) Zone
All the camera locations including the connections to control room to be done in **Phase-I**

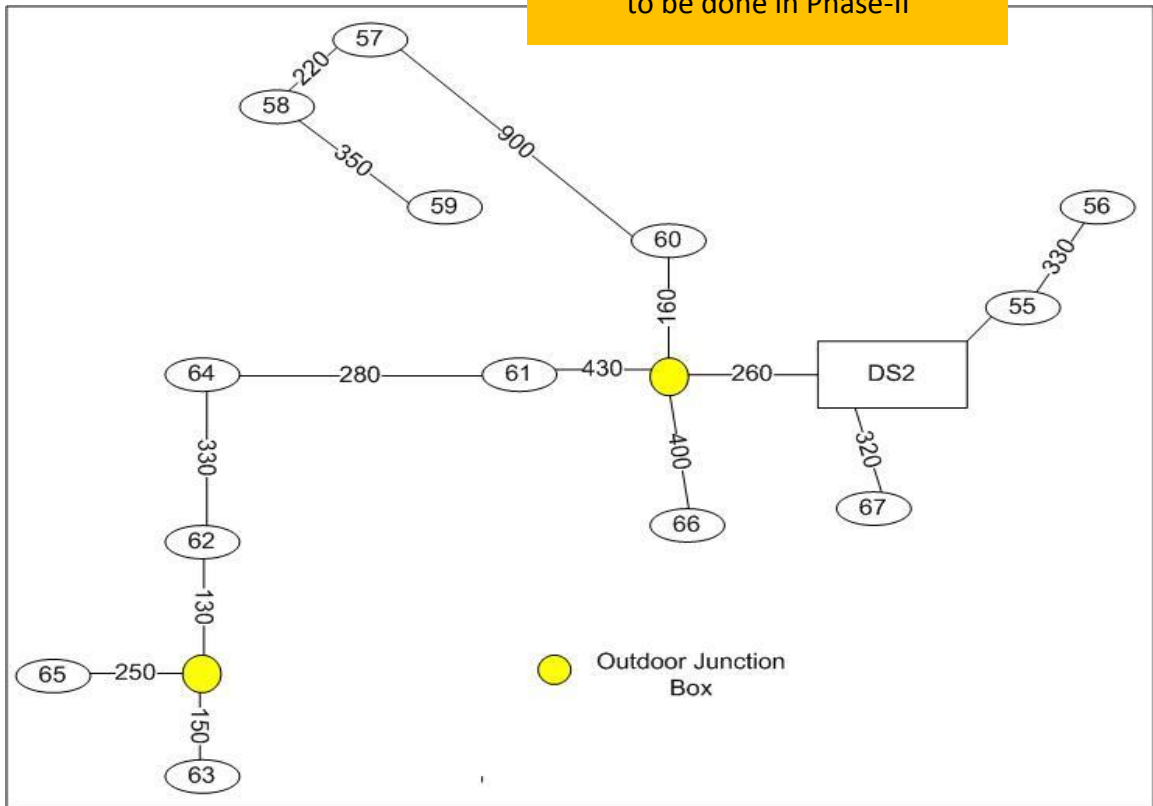


DS-1 Zone
All the camera locations including the connections to control room to be done in Phase-II



DS-2 Zone

All the camera locations including the connections to control room to be done in Phase-II



Checklist to be submitted by the bidder

Please indicate YES/NO against each clause		
1.	Implement the entire project on a turnkey basis	YES/NO
2.	Provide main 4 operators for central control room	YES/NO
3.	Provide 1 Engineer,2 technicians during warranty & AMS other than 4 Control Room operators	YES/NO
4.	All onsite personnel stationed by the vendor at Duliajan for operations and maintenance of the entire solution will have to be paid a minimum salary of Rupees 6,500/- (Basic + DA) per month or as applicable as per Govt norms	YES/NO
5.	Carry out all necessary electrical jobs as per scope of work.	YES/NO
6.	Have Designated office and single point of contact in Assam	YES/NO
7.	Arrange own accommodation & transport	YES/NO
8.	Meet delivery, installation & commissioning terms.	YES/NO
9.	Providing 3 years onsite warranty	YES/NO
10.	Providing 4 years of AMS	YES/NO
11.	Stock critical spares as per the list provided	YES/NO
12.	Have experience of 1 similar campus during last 7 years of value minimum Rs. 3 Crore	YES/NO
13.	Relevant documents have been submitted.	YES/NO
14.	Penalty terms	YES/NO
15.	Provide MAF for camera.	YES/NO
16.	Provide MAF for media converter.	YES/NO
17.	Provide MAF for cisco switches.	YES/NO
18.	Payment Terms	YES/NO

Note: Deviations to any terms and conditions of the tender must be explicitly mentioned. Otherwise it will be construed that the bidder agrees to all the terms and conditions of the tender fully as it is.

Annexure- DDD

INTEGRITY PACT

Between

Oil India Limited (OIL) hereinafter referred to as "The Principal"

And

(Name of the bidder).....hereinafter referred to as "The Bidder/Contractor" |

Preamble :

The Principal intends to award, under laid down organizational procedures, contract/s for Tender No. **SDI3784P15** The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

In order to achieve these goals, the Principal cooperates with the renowned international Non-Governmental Organisation "Transparency International" (TI). Following TI's national and international experience, the Principal will appoint an external independent Monitor 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) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
 1. 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 entitled to.
 2. The Principal will, during the tender process treat all Bidders with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidders the same information and will not provide to any Bidder confidential/additional information through which the Bidder could obtain an advantage in relation to the tender process or the contract execution.
 3. The Principal will exclude from the process all known prejudiced persons.
- (2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a Page 2 of 6 substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder/Contractor

- (1) The Bidder/Contractor commits itself 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.
 1. The Bidder/Contractor 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 immaterial 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.
 2. The Bidder/Contractor will not enter with other Bidders 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 cartelisation in the bidding process.
 3. The Bidder/Contractor will not commit any offence under the relevant Anticorruption Laws of India; further the Bidder/Contractor 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.
 4. The Bidder/Contractor will, when presenting his bid, 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.
- (2) The Bidder/Contractor 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, before contract award has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or credibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

1. If the Bidder/Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is entitled also to exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressions within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

2. The Bidder accepts and undertakes to respect and uphold the Principal's Absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.
3. If the Bidder/Contractor can prove that he has restored/recouped the Damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.
1. A transgression is considered to have occurred if in light of available evidence no reasonable doubt is possible.

Section 4 - Compensation for Damages

1. If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from the Bidder liquidated damages equivalent to 3 % of the value of the offer or the amount equivalent to Earnest Money Deposit/Bid Security, whichever is higher.
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 equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.
3. The bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder/Contractor can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount or the liquidated damages, the Bidder/Contractor shall compensate the Principal only to the extent of the damage in the amount proved.

Section 5 - Previous transgression

1. The Bidder declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the TI approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 - Equal treatment of all Bidders/Contractor/Subcontractors

1. The Bidder/Contractor undertakes to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
2. The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.

3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 - Criminal charges against violating Bidders/Contractors/ Subcontractors

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 Vigilance Office.

Section 8 - External Independent Monitor/Monitors (three in number depending on the size of the contract) (to be decided by the Chairperson of the Principal)

1. The Principal appoints competent and credible external independent 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.
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 Chairperson of the Board of the Principal.
3. The Contractor 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/Contractor/Subcontractor with confidentiality.
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.
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 heal the violation, or to 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.
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.
7. If the Monitor has reported to the Chairperson of the Board a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Chairperson has not, within reasonable time, taken visible action to proceed

against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

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 12 months after the last payment under the respective 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 Chairperson of the Principal.

Section 10 - Other provisions

1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi.
2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
3. If the Contractor is a partnership or a consortium, this agreement must be, signed by all partners or consortium members.
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 intentions.

|

TUHIN ROY

DEPUTY MANAGER MATERIALS (IP)

For the Principal

For the Bidder/Contractor

Place. Duliajan.

Witness 1 :

Date 03.06.2014 .

Witness 2 :]

List of Spare Items to be kept at Site during Warranty and AMS Period

1. Indoor FIXED Dome cameras for IT, CIVIL, Materials, Contracts- 4 Nos.
2. Outdoor Fixed box type camera for Town ship-5nos.
3. PTZ camera for town ship and Remote drilling Location-10 Nos.
4. LX modules for Town ship -10 Nos.
5. Industrial Grade Media Converter for Town ship-10 nos.
6. 10 G modules forTown ship- 5 Nos.
7. 8 ports NVR for remote drilling locations- 1 nos.
8. 8 ports L2 edge switches for remote drilling locations- 1 Nos.
9. 1 TB hard disk for NAS/NVR /NVMS server for Town ship-4 no
10. Cartridge for LTO for town ship-5 Nos.

Bidders Response Sheet**Annexure-FFF**

Tender No.	
Bidders Name	

Sl No.	Description	Remarks
1	Name of Bidder	
2	Whether tender document purchased from OIL's offices.	
3	Place of Despatch	
4	Whether Freight charges have been included in your quoted prices	
5	Whether Insurance charges have been included in your quoted prices	
6	Make of quoted Product	
7	Offered Validity of Bid as per NIT	
8	Delivery Period in weeks from placement of order	
9	Complied to Standard Payment Terms of OIL or not.	
10	Bid Security Submitted (if applicable)	
11	Details of Bid Security Submitted to OIL (if applicable)	
	a) Bid Security Amount (In Rs):	
	b) Bid Security Valid upto:	
	c) Name and Full Address of Issuing Bank:	
12	Confirm that the Bid Security submitted (In case of Bank Guarantee) is in toto as per format provided in the tender.	
13	Bid Security if Not submitted reasons thereof	
14	Whether you shall submit Performance Security in the event of placement of order on you (if applicable)	
15	Integrity Pact Submitted (if applicable)	
16	Confirm that the Integrity Pact submitted is in toto as per format provided in the tender.	
17	Whether submitted documents in support of General Qualification criteria of NIT	
18	If bidder is Small scale unit whether you have quoted your own product	
19	If bidder is Small scale unit whether you are eligible for purchase preference (as per Govt guideliness)	
20	Whether filled up the bank details for online payment as per Annexure GGG	

NOTE: Please fill up the greyed cells only.

Technical Bid Checklist**Annexure-EEE**

Tender No.			
Bidder's Name :			
		Compliance by Bidder	
SL. NO.	BEC / TENDER REQUIREMENTS	Indicate 'Confirmed' / 'Not Confirmed' / Not applicable	Indicate Corresponding page ref. of unpriced bid or Comments
1	Bidder to confirm that he has not taken any exception/deviations to the bid document .		
2	Confirm that the product offered strictly conform to the technical specifications.		
3	Confirm that the Offer has been made with Bid Bond / Bank Guarantee / Earnest Money along with the offer (Wherever Applicable) ?		
4	Confirm unconditional validity of the bid for 120 days from the date of opening of techno-commercial bid.		
5	Confirm that the prices offered are firm and / or without any qualifications?		
6	Confirm that all relevant fields in the on-line bidding format been filled in by the bidders for the items quoted by them.		
7	Confirm that the the price bid is in conformity with OIL's online bidding format ?		
8	Confirm that the Bid comply with all the terms & conditions ?		
9	Confirm that the offers and all attached documents are digitally signed using digital signatures issued by an acceptable Certifying Authority (CA) as per Indian IT Act 2000.		
10	CONFIRM THAT YOU HAVE SUBMITTED THE DULY SIGNED INTEGRITY PACT DOCUMENT (Wherever Applicable)		
11	CONFIRM THAT YOU HAVE SHALL SUBMIT PERFORMANCE BANK GUARANTEE AS PER NIT IN THE EVENT OF PLACEMENT OF ORDER ON YOU (Wherever Applicable)		
12	CONFIRM THAT YOU HAVE SUBMITTED DOCUMENTS AS PER GENERAL QUALIFICATION CRITERIA		

NOTE: Please fill up the greyed cells only.

**(TO BE FILLED UP BY ALL THE VENDOR IN THEIR OWN LETTER HEAD)
(ALL FIELDS ARE MANDATORY)**

Tender No. :.....
Name of Beneficiary :M/s.....
Vendor Code :.....
Address :.....
.....
Phone No. (Land Line) :.....
Mobile No. :.....
E-mail address :.....
Bank Account No. (Minimum
Eleven Digit No.) :.....
Bank Name :.....
Branch :.....
Complete Address of your
Bank :.....

IFSC Code of your Bank
a) RTGS :.....
b) NEFT :.....
PAN :.....
VAT Registration No. :.....
CST Registration No. :.....
Service Tax Registration No. :.....
Provident Fund Registration :.....

I/We confirm and agree that all payments due to me/us from Oil India Limited can be remitted to our above mentioned account directly and we shall not hold Oil India Limited responsible if the amount due from Oil India Limited is remitted to wrong account due to incorrect details furnished by us.

Office Seal

.....
Signature of Vendor

Counter Signed by Banker:
Seal of Bank:

Enclosure: Self attested photocopies of the following documents-

- 1) PAN Card
- 2) VAT Registration Certificate
- 3) Service Tax Registration
- 4) CST Registration
- 5) Provident Registration Certificate
- 6) Cancelled cheque of the bank account mentioned above (in original).
- 7) Bank Statement not older than 15 days on the date of submission.

Bidders should submit the price breakup of all the items as per “Annexure HHH” which has been uploaded under “Notes & Attachments” > “Attachments”. The price breakup “Annexure HHH” should be filled up, signed and uploaded under “Notes & Attachments” > “Attachments” only. **The filled up price breakup of all the items should not be uploaded in Technical RFX Response folder as it shall lead to rejection of the offer as per Bid Rejection Criteria.**

ANNEXURE-HHH

Price Breakup

Tender No & Date: SDI3784P15 dated 03.06.14

Item Nos and Quantity	Unit Price (In Rs)	Rate of taxes applicabl e (In %)	Freight Charges (In Rs)	Insuranc e Charges (In Rs)
Item No 1. IP Fixed Indoor Camera for Civil Department (Qty = 10 Nos)				
Item No 2. Outdoor PTZ Dome Camera for Civil Department (Qty = 4 Nos):				
Item No 3. NVR for Civil Deptt (Qty = 1 Nos)				
Item No 4. 40-42" inch Colour LED Professional Monitor for Civil Engineering Department (Qty = 1 Nos)				
Item No 5. 5 KVA UPS for CCTV at Civil Engineering Department (Qty = 1 Nos)				
Item No 6. Cable and Conduit for CCTV at Civil Engineering Department (Qty = 1 LOT).				
Item No 7. 24 Port Switch for CCTV at Civil Engineering Department (Qty = 1 Nos).				
Item No. 8. Accessories for Fixing CCTV Cameras at Civil Engineering Department (Qty = 1 Nos).				
Item No 9. Outdoor Fixed Camera for OIL Township (25 Nos).				
Item No 10. Outdoor PTZ Camera for Oil Township and Remote Drilling Locations. Qty = 73 Nos				
Item No 11. NVR/NVMS server having capability for viewing or control at atleast 128 cameras, 60 TB				

storage , inbuilt analytics for Control Room. (Qty = 1 Nos).				
Item No 12. Display Units for CCTV Control Room for Township Surveillance. (Qty = 3 Nos).				
Item No 13. Server for VMS and DB Management for CCTV for OIL Township (Qty =1 Nos):				
Item No 14. WS/ server with 22" LED monitor for managing LTO device for Township control room (Qty = 1 Nos).				
Item No 15. Layer 3 Switch (Qty = 7 Nos):				
Item No 16. Layer 3 Switch (Qty = 2 Nos):				
Item No 17. Layer 3 Switch for control room (Qty = 2 Nos):				
Item No 18. Media Converter: Single Mode for CCTV OIL Township (Qty = 90 Nos):				
Item No 19. Category 6 Solid UTP Cable Box (Qty = 1 Nos):				
Item No 20. 2 Core Power Cable (Qty = 1 Nos)				
Item No 21. 3 Core Power Cable (Qty = 1 Nos)				
Item No 22. Outdoor Single Mode fiber optic cable (Qty = 1 Nos)				
Item No 23. MS conduit pipes (Qty = 1 Nos)				
Item No 24. PVC/HDPE pipes (Qty = 1 Nos):				
Item No 25. Galvanized Pole(Qty = 97 Nos):				
Item No 26. Angle for cemara fitting (Qty = 97 Nos):				
Item No 27. GI Pipes (Qty = 1 Nos):				
Item No 28. Cat 6 patch cord (Qty = 230 Nos):				
Item No 29. 2 M Cat6 Patch Cord (Qty = 40 Nos):				
Item No 30. I/O Cat 6 face Plate (Qty = 40 Nos):				
Item No 31. FO Patch Cord SC-LC (Qty = 240 Nos):				

Item No 32. 5 Amp 5 PIN Socket (Qty = 100 Nos):				
Item No 33. 24 Port Patch Panel Cat6 (Qty = 69 Nos):				
Item No 34. 9U,19inch Rack (Qty = 15 Nos):				
Item No 35. 24 Port Fiber Optic Rack mount LIU, loaded with adapter plates, Splice Tray and Pigtailes (Qty = 15 Nos):				
Item No 36. 10 KVA/9 KW (1-Phase Input / 1-Phase Output) UPS System with Individual Battery Bank in PRS (1+1) MODE for Control Room: 1 Set				
Item No 37. 1 KVA UPS (Qty = 8 Nos):				
Item No 38. Edge switch with 8 port copper and 1 SFP Port (Qty = 15 Nos):				
Item No 39. 42U 19 Inch Rack (Qty = 1 Nos):				
Item No 40. NVR-8-CH (Qty = 15 Nos):				
Item No 41. Installation and Commissioning of CCTV System at OIL Township and Remote Drilling Locations (Qty = 1 AU):				
Item No 42. Any item which may be required (Qty = 1 LOT):				
Item No 43. CCTV for Materials Department (Qty = 8 Nos):				
Item No 44. Cables and Conduit (Qty = 1 Nos):				
Item No 45. 24 Port Switch (Qty = 1 Nos):				
Item No 46. Accessories (Qty = 1 Nos):				
Item No 47. CCTV for Contracts Department (Qty = 8 Nos):				
Item No 48. Cables and Conduit (Qty = 1 Nos):				
Item No 49. 24 Port Switch (Qty = 1 Nos):				
Item No 50. Accessories (Qty = 1 Nos):				
Item No 51. CCTV for IT Department (Qty = 7 Nos):				

Item No 52. Cables and Conduit (Qty = 1 Nos):				
Item No 53. Accessories (Qty = 1 Nos):				
Item No. 54. Supply of FRP box for I/C Power tapping (Qty = 94 Nos):				
Item No. 55. Supply of FRP for O/G power tapping (Qty = 94 Nos):				
Item No. 56. Installation & Commissioning of Item no 71 (Qty = 1 AU):				
Item No. 57. Installation & Commissioning of Item no 72 (Qty = 1 AU):				
Item No. 58. 3 core 4 mmsq Copper PVCA cable (Qty = 4000 Metres):				
Item No. 59. 3 core 6 mmsq Copper PVCA cable (Qty = 7500 Metres):				
Item No. 60. Installation & Comm of cable (Qty = 1 AU):				
Item No. 61. 9 Mtrs Pole (Qty = 120 Nos):				
Item No. 62. Installation & Commissioning of Poles (Qty = 1 AU):				
Item No. 63. Supply of stay set complete (galvanised) (Qty = 50 Nos):				
Item No. 64. Installation & Comm Stay set (Qty = 1 AU):				
Item No. 65. Supply of 6/16 A combined Modular S/Soc (Qty = 140 Nos):				
Item No. 66. Installation & Comm S/S (Qty = 1 AU):				
Item No. 67. Supply of 2" GI pipe (Qty = 1000 Metres):				
Item No. 68. Installation & Comm of GI pipe (Qty = 1 AU):				
Item No. 69. Installation commissioning of O/H Cable (Qty = 1 AU):				

Item No. 70. Power circuit wiring (Qty = 1000 Metres):				
Item No. 71. Supply of 4 Module Board (Qty = 40 Nos):				
Item No. 72. Installation & Comm of 4 Module board (Qty = 1 AU):				
Item No. 73. Supply of 20 A RCBO with enclosure (Qty = 40 Nos):				
Item No. 74. Installation & Comm of RCBO (Qty = 1 AU):				
Item No. 75. Supply of RCBO (Qty = 20 Nos):				
Item No. 76. Supply of DP MCB (Qty = 20 Nos):				
Item No. 77. Supply of FRP box (Qty = 20 Nos):				
Item No 78. Warranty 3 years (Qty = 1 AU):				
Item No. 79. Annual Maintenance Services for 4 years (AMS), Qty = 1 AU:				