

Bid Document dated 07.10.2017

NAME OF WORK: Bid for Selection of Agency for Operation, Maintenance and Repair of Telecommunication equipments, entire Telecommunication Network and OFC cable from Santalpur to Charanka of the Solar Park at Charanka Village, Patan District, Gujarat on behalf of Gujarat Power Corporation Ltd., Gandhinagar.

RFP NO.: GIL\GPCL O&M \2017

DATE: . 07.10.2017

To,	<p>Client: Gujarat Power Corporation Ltd., Gandhinagar.</p> <p><u>Name of Work:</u></p> <p>Bid for Selection of Agency for Operation, Maintenance and Repair of Telecommunication equipments, entire Telecommunication Network and OFC cable from Santalpur to Charanka of the Solar Park at Charanka Village, Patan District, Gujarat on behalf of Gujarat Power Corporation Ltd., Gandhinagar.</p> <p>Venue: GIL conference room, Block No. 1, 8th Floor, Udhyog Bhavan, Sector-11, Gandhinagar-382010</p> <p><u>Pre-bid meeting:</u> 13.10.2017 at 1500 hours</p> <p><u>Last date & time for Bid Submission:</u></p> <p style="text-align: right;">: 30.10.2017 till 1500 hours</p> <p><u>Bid Upload On</u> : https://gil.nrocure.com</p> <p><u>Date of Opening of Bid</u> : 30.10.2017 at 1700 hours</p> <p><u>Bidding Agency Address:</u></p> <p style="text-align: right;">Gujarat Informatics Limited Block No. 1, 8th Floor, Udhyog Bhavan, Gandhinagar-382010 Phone :23256022 Fax: 23238925 E-mail: info@gujaratinformatics.com website:www.gujaratinformatics.com</p>
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Note:

Please address all queries and correspondence to
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Gujarat Informatics Limited (hereinafter referred to as "GIL"), on behalf of Gujarat Power Corporation Ltd., Gandhinagar (hereinafter referred to as "GPCL"), invites offer through E-tendering route for Selection of Agency for Operation, Maintenance and Repair of Telecommunication equipments, entire Telecommunication Network and OFC cable from Santalpur to Charanka of the Solar Park at Charanka Village, Patan District, Gujarat on behalf of Gujarat Power Corporation Ltd., Gandhinagar.

Proposals are hereby called for from the Bidders having capability and resources in Operation, Maintenance and Repair of Telecommunication equipments, entire Telecommunication Network and OFC cable at locations described by GPCL, Gandhinagar.

Proposal in the form of BID are requested for the item(s) in complete accordance with the documents to be uploaded as per following guidelines.

- 1.0 Bidder shall submit their bids on <https://www.gil.nprocure.com>.
- 2.0 The Bid Security and non-refundable bid processing fees in a separate sealed envelope super scribed with the bid document number to GIL office on or before due date.
- 3.0 The bid shall specify time schedule of various activities.
- 4.0 Bids complete in all respects should be uploaded on or before the BID DUE DATE.
- 5.0 Services offered should be strictly as per requirements mentioned in this Bid document. Please spell out any unavoidable deviations, Clause/ Article-wise in your bid under the heading Deviations.
- 6.0 Once quoted, the bidder shall not make any subsequent price changes, whether resulting or arising out of any technical/commercial clarifications sought regarding the bid, even if any deviation or exclusion may be specifically stated in the bid. Such price changes shall render the bid liable for rejection. However, GOG reserve the right to seek revised financial offer.
- 7.0 Bidder shall quote the prices of services as mentioned valid for 12 (twelve) months.
- 8.0 In addition to this RFP, the following sections uploaded are part of Bid Documents.

Section : 1	Project Profile & Objective
Section : 2	Eligibility Criteria
Section : 3	Scope of Work
Section : 4	Instructions to Bidders
Section : 5	Technical Specifications & Format of forms
Section : 6	Schedule of Requirement: Price Bid
Section : 7	Performa of Performance Bank Guarantee
Section : 8	Special Conditions of Contract

Important Dates

Pre-bid Meeting	13.10.2017 at 1500 hrs
Last date and time for bid submission	30.10.2017 till 1500 hours.
Date and time for opening of Bid	30.10.2017 at 1700 hours
Bid Processing Fees (Non - refundable)	Rs. 2950/- (Including G.S.T.) (Rupees Two Thousand Nine Hundred Fifty Only)
Bid security (EMD)	Rs. 1,00,000/-
GIL Contact person	DGM (Tech)- GIL

Section – 1: Project Profile & Objective

Gujarat Power Corporation Ltd (GPCL) is a Government of Gujarat undertaking which is responsible for setting up various Power Projects in the State of Gujarat.

Government of Gujarat has given mandate to GPCL to setup state of the art infrastructure in an area covering approximately 5000 acres at Charanka Village, Santalpur Taluka, Patan District, Gujarat. The Government of Gujarat has a vision that if the area is developed and all the necessary infrastructure is provided then, under one roof all the investors can setup their Power project and the power being generated from this can be evacuated with least impact to the environment, minimum land acquisition etc.

Salient Features of the Project site

An extent of 5001.67 acres of land has been identified by the GPCL which falls within the village land of Charanka, Santalpur taluka, Patan district, Gujarat State.

Geographical location of the site Latitude 23 54 20.24" Longitude 71 11 54.29". The maximum and minimum elevation of the site is 42.75 m and 7.06 m respectively above Mean Sea Level.

The Solar Park is located to the North of Charanka village in Santalpur taluka, Patan District. There are three connectivity to the project site which is detailed below:

Connectivity

The site is surrounded by the Rann of Kutch in the North, Reserved forest in the East, Aluvas village/ Asphalted road connecting Charanka and Fangli villages in the South and Agricultural land/Rann of Kutchh lands falling within the village of Charanka in the West.

Road Connectivity

The site is best approached from NH 15 (between KM Stone No 186 & 187) through an existing Asphalt road having a carriage way width of about 3.5 M wide (Single lane), covering a length of about 15.5 km. The road passes through the villages of Bakutra and Dhokavada respectively en-route.

Railway Connectivity

The nearest Rail head is located at a distance of about 16.5 km and it is at Santalpur town on Palanpur District, Gandhidham Kandla Port trust section of the Western railway.

Airport

The nearest Airport to the Solar Park happens to be Kandla besides Bhuj and Ahmedabad which can also be utilized. The distance to the Airports from the project site are provided below:-

Kandla is at 161.5 Km (Domestic Airport) Bhuj is at 207.5 (Domestic Airport) Km
Ahmedabad is about 215.5 Km (International/Domestic Airport)

While the Kandla and Bhuj will handle domestic airlines, the Ahmedabad Airport is an International Airport having facilities for transportation of the Cargo.

Port Connectivity

The nearest port to the Solar park at Charanka is Kandla which is located about 163.5 Km and is South
-West of Charanka site.

The Kandla port and Santalpur are well connected by NH15 and broad gauge railway line and hence movement of the cargo, machineries, equipment using these corridors up to the project site is will be easy

The Gujarat Power Corporation Ltd. (GPCL) a wholly owned Government Company, is the Nodal Agency of Government of Gujarat for Power Sector. The main objective of GPCL is to identify power projects based on various fuels, prepare the techno economic feasibility report, identify suitable public/private developers and implement the Power Project jointly with them or on its own. GPCL also facilitates public/private developers to set-up power project in the State. GPCL is key institute for formulation of power sector policies of the State. GPCL is also been designated as Nodal Agency for implementation of the Solar Power Policy-2009 to facilitate and assist the project Developers in various issues. Development of solar generation plants/parks is one such endeavor to mitigate the process of climate change. Gujarat Government & GPCL have taken a proactive approach in harnessing the vast potential of solar energy.

Government of Gujarat & Clinton Climate Initiative (CCI) signed a Memorandum of Understanding ("MoU") with the State of Gujarat on 7th September 2009 to assess the feasibility of developing a Solar Park in Gujarat. The Solar Park concept is similar to an economic zone dedicated to the generation of solar power. A Solar Park comprises of a number of solar power generation plants each developed by individual investors. As a part of its vision for development of clean energy, GPCL has set up a state of the art Solar Power Park with a capacity of more than 500 MW, covering approximately 5000 acres land

at Charanka Village, Santalpur Taluka, Patan District. The concept aimed to accelerate the development of generation projects and to de-risk single investments, through the availability of large areas of suitable land, the provision of common infrastructure – including grid connection for power evacuation, water access to a number of Power generation units as well as facilitating the permitting process, internal access roads etc.

Gujarat Power Corporation Limited (GPCL) has set up a state of the art Solar Power Park in Charanka, Patan district in the State of Gujarat. The basic infrastructure facilities for the prospective power companies to produce solar power have already been completed.

The solar park is likely to get solar energy for 330 days in a year amounting to 5.5 to 6.0 KW per Sq.m solar radiation every day. Gujarat government has agreed to buy 933-MW of power under its new solar power policy, which is a remarkable move in the solar power sector of India.

The objective of this invitation for bids is to source prospective agencies with sufficient resource and sound technical background as well as experience to participate in the tender process for operation and maintenance activities of Telecommunication Network indicated here under and commissioned at Gujarat Solar Park.

The objectives of service is to: act independently and on behalf of the GPCL to operate and maintain all the Infrastructure facilities provided at the Solar Park and ensure compliance to the required codes of practice. The operation and maintenance for the infrastructure facilities shall be carried out as under:

Section – 2: Eligibility Criteria

Sr · No	Criteria	Supporting documents to be uploaded
1	The bidder should be either company/partnership firm/sole proprietary firm existing in India and should have been engaged in IT/Telecom activity.	Documentary proof
2	The bidder shall have a minimum turnover of Rs.50 lacs in each of the last three financial years. (Form No. E1).	Audited balance sheet or CA certificate
3	The bidder should have executed one order of maintenance of OFC network and also should have minimum 1 year experience in handling Operation, Maintenance and repairing of GPON or other similar Network either as main contractor or as subcontractor (Form No. E2).	certificate, duly signed by the authorized person from the relevant department/Organization/ Company for having successfully completed these works

Note: All the details and the supportive documents for the above mentioned items should be uploaded in eligibility section in the bid.

Section – 3: Scope of Work

General:

The following points of this section briefly highlight the scope of the work of the Project for the information of the Contractor/Agency. The description of the requirements for the various elements of the Project given herein under is the bare minimum requirements that the Contractor needs to undertake/provide for operating and maintaining the facilities indicated in Section 5 to an extent possible such that no disruption is caused to the developers and the generation of power at the solar park.

The operation & maintenance of infrastructure facilities as described is for a period of 2 (two) year from the date of contract. The contract may be extended, if required on mutual agreement.

Scope of Service for O & M and repair activities:

➤ Telecommunication Network (On a regular basis):

The Solar Park has been provided with Telecommunication equipments and network system which is to be operated, maintained, serviced and repaired on a regular basis as indicated.

1. (i) All the existing/commissioned/ to be commissioned etc. shall be operated and maintained by the Contractor.
(ii) The establishment charges, telephone charges and all other charges required to operate and maintain the assets as per prudent utility practices shall have to be borne by Contractor.
(iii) All the actual expenses incurred by the Contractor and approved by GPCL, shall be reimbursed to the Contractor.
2. The present assignment of undertaking the work of O&M and repair is limited to the deployment of required technical (key professionals) and skilled personnel and machineries, tools and equipment as envisaged, to undertake the O&M and repair activities for ensuring that all the facilities created shall be utilized to its optimum extent in terms of providing highest level of serviceability to the end user. The number of personnel mentioned is the minimum required.
3. The contractor shall be responsible for submitting reports as indicated in Section 6 of Bill of Quantities.
4. The contractor shall establish a full-fledged office at the site and provide the entire required office furniture's, equipment's, utilities during the contract period at their own cost.
5. If any activity which requires repairs, maintenance, replacement, Annual maintenance charges etc., and is not covered under this Tender, has to be listed and reported in a standard format giving the reasons there on for attending to the same. The Contractor should clearly mention whether the response required for such repairs and

maintenance is immediate in nature or can be taken up as a part of the preventive action.

6. Depending on the exigency, the action will be initiated. It will be the responsibility of the Contractor to identify all such activities and report immediately to the concerned Engineer in charge / GPCL.
7. If there are activities which will have a direct impact on loss of human life, resources, equipment, machinery, etc., then all such activities has to be attended on priority, for which the Contractor can put up claim separately, which will be reviewed and considered by the GPCL based on the recommendation of the Engineer in-charge.
8. It will be a mandate for the Contractor to carry out the routine inspection and maintenance of all the major components and report the status and condition well in advance; to the extent it is presumed that the Contractor will deploy the required technically qualified resources. The report should clearly bring out the preventive action that needs to be taken care, so that, it will enable GPCL to act in the best interest.
9. Besides the routine inspection and maintenance being carried out by the Contractor, specific inspection and maintenance should also be carried out before the monsoon regarding all the facilities created, especially roads, reservoir, drainage network, cross drainage structure, locations which are prone to erosion and report the same with justification, including the budget required to attend to the same. GPCL will inspect the same and give further communication regarding the modus of operandi to rectify the same or attend to it.
10. The Contractor should maintain a Complaint Register or Incident Register both on-line as well as off-line to report regarding the various incidents / complaints about the maintenance activities from the end user / developers. It will be the responsibility of the Contractor to attend to the same depending on the severity of the incident / complaint and get the report for having satisfactorily attended to it. The agency should report all such action taken in a standard format along with the routine O&M activity report being submitted on monthly basis.
11. The Contractor should nominate a Team Leader who is responsible for reporting all the activities along with the Dy. Team Leader who will be available for any clarifications and attending to the needs.
12. The Contractor shall have to provide a minimum level of staff for the Project in accordance with this section.
13. Qualified and locally available staff shall be engaged by the contractor to the extent possible.
14. The Contractor shall be responsible for timely payment of salaries of his staff as well as the salaries of the locally appointed people.
15. The Contractor shall be responsible for the safety and safe operations of all civil structures and electrical & mechanical equipment and all the installations and assets.

16. The Contractor should keep the necessary spares in his stock during the term of agreement
17. Preventive maintenance required for all major and minor electrical & mechanical equipment's shall be attended by the Contractor at his cost. Responsibility of faults due to lack of maintenance, lies on the Contractor. All planning of shutdowns etc. shall be as per the directives from GPCL Representative.
18. The Contractor shall comply with all Contractor's obligations mentioned in the entire Agreement and Schedules to the Agreement and instructions issued by the GPCL.
19. The GPCL reserves the right to ask the Contractor to discontinue any worker / labour for misbehavior/misconduct or negligence on duty. In any case the workers should not be found in intoxicated condition. They should be medically fit and the Contractor shall ask a medical fitness certificate from the competent authority before engaging any worker.
20. GPCL shall have the authority to ask the Contractor to change any employee who is found physically, technically unfit for the job. And the said instructions shall be followed by the Contractor.
21. Contractor shall maintain the record of attendance, wages paid to employees and PF subscription.
22. The record shall be open for verification of GPCL Officers as well as the authorities from Govt. Organizations.
23. Employment to the workers, engaged by the contractor, on the work shall be entirely the contractor's responsibility. In any case, contractor's employees shall not have any right for employment in GPCL.
24. Contractor shall have to observe all safety measure as per the norms of Govt. under various acts and rules. Contractor shall have to maintain all necessary safety equipment's, chlorine tonners handling equipment's and lifting tools & tackles required for the work in good working condition.
25. Contractor shall have to maintain the record in prescribed form regarding maintenance/repair works (preventive as well as break-down) carried out at all stations. Separate history sheet should be maintained for every equipment/machine.
26. Essential and break-down maintenance/repair works shall have to be carried out continuously irrespective of day and night to put the machines in working order in shortest possible time. If required, in such cases, contractor will have to increase the staff. No extra payment will be made by GPCL for increasing the staff; no overtime wages for such extra work will be borne by GPCL. During break down maintenance, staff shall not leave the premises without permission of GPCL.
27. Good housekeeping shall be maintained at all the required places.
28. Contractor shall bring all required instruments, tools and tackles to site at his own cost.
29. Contractor shall carry out the major & minor maintenance and repair works in all shifts such as replacement of fuses, glands, packing, oiling, and rectification of fault in electrical and electronic circuits, arresting sparking.

30. After completion of the contract period Contractor shall handover all the infrastructure facilities which was in his possession during the contract period in good & working condition.
31. Contractor shall have to make arrangement of daily patrolling, for the infrastructure facilities coming under this contract.
32. The Contractor shall not set fire to any standing jungle, trees, brush wood or grass without a written permission from the GPCL. When such permit is given, and also in all cases when destroying cut or dug up trees, brushwood, grass etc. by fire, the Contractor shall take necessary measures, to prevent such fire spreading to or otherwise damaging surrounding property.
33. The Contractor shall make his own arrangements for drinking water for the labour employed by him and should provide sanitary and other arrangements. However, they can use the existing arrangement of GPCL, if available, and permitted by GPCL.
34. The Contractor shall provide all necessary personal safety equipment and first aid apparatus available for the use of persons employed and shall comply with the following regulation in connection therewith
 - a) The workers shall be required to use the equipment so provided by the Contractor and the Contractor shall take adequate steps to ensure proper use of the equipment by those concerned.
 - b) When work is carried on in proximity to any place where there is risk of drowning, all necessary steps shall be provided and kept ready for use and for the prompt rescue of person in danger.
 - c) Where the workers are required to work near machines and are liable to accidents, they should not be allowed to wear loose clothes.
35. The Contractor shall be responsible for and shall pay the expenses of providing medical aid to any workmen who may suffer a bodily injury as a result of an accident.
36. The Contractor shall duly comply with the provisions of "The Apprentices Act, 1961" (III of 1961) the rules made there under and the order that may be issued from time to time under the said Act and Said Rules and on his failure or neglect to do so he shall subject to all the said liabilities and penalties provided by the said Act and said Rules.
37. During the term of agreement and at the termination of the agreement the Infrastructural facilities should be in perfect working conditions. Under no circumstances the Contractor should leave any maintenance work unattended while handing over of the scheme. It is obligatory on part of the Contractor that.

List of Technical Manpower / Vehicle

Operation and Maintenance:

Key Professionals	Qty.	Qualification
Engineer / Supervisor- Telecom	1	BE/B.Tech, in Telecommunication/Electrical with minimum experience of 5years experience out of which at least 03 years in carrying PMC/O & M activities or Diploma in Electronics / Telecommunication with minimum experience of 07 years experience out of which at least 05 years in carrying PMC/O & M activities
Technical Support Staff		
Assistant Splicer	1	Diploma in Electronics / Telecommunication with minimum experience of 05 years in the relevant field.
Helpers	2	ITI in Electronics / Telecommunication / Electrical with minimum experience of 05 years in the relevant field or any other skilled person having minimum 07 years of experience in the relevant field.
Other		
Security	1	For 12 hours during the night shift

The above mentioned man power requirement is bare minimum. The contractor, if required shall deploy additional resources.

The contractor has to deploy required facilities like Vehicles, mobile communication, consumables, tools, tackles and equipment's to facilitate successful completion of the assignment.

Operations and Maintenance standards to be followed:

The operations and maintenance standards shall follow the minimum requirements mentioned herein. However, all the relevant standard and code which are applicable and in vogue shall be followed for specific infrastructure facilities.

Operation & Maintenance of entire Telecommunication Network including OFC cables (On a regular basis)

The objective and minimum frequency of inspections under normal circumstances shall be as under.

Object	Daily	Monthly	Quarterly	Before and after rainy Season
Duct / Cable	+			
	+			
Equipment's in Control Room	+			
CPE at Customer Premises		+		
Optical splitter on kerbs	+			
Service of equipments			+	

Situation of maintenance:

Elements of operation: Task: Operation proceeds between customers and Network Elements (NEs). Optical fiber cable operation is classified into two operations: a customer service operation and NE operation (refer to Figure I.1). The former consists of tasks, such as reception of service order, billing_information inquiry, and reception of trouble report. The latter also consists of tasks, such_as provision, construction, installation, maintenance and administration. These tasks are closely related.

Elements of maintenance: Activities: Maintenance consists of three activities: surveillance, testing and control of NE. These are described below:

- Surveillance: to monitor the condition of NE. Surveillance has two functions: to inform of NE degradation before trouble occurs, and to inform of NE abnormality when trouble occurs.
- Testing: to measure characteristics of NE and to check whether the characteristics satisfy a required level or not.
- Control: to restore NE to normal or to take action to maintain service quality.

Generally, the type of maintenance involving such works as monitoring NE degradation, testing and NE control before trouble occurs is considered to be preventive maintenance.

On the other hand, the type of maintenance involving such works as reception of an alarm or a trouble report, testing and NE controlling after a fault has occurred is considered as post-fault maintenance.

From the standpoint of preventive maintenance, optical fiber cable maintenance is composed of three activities such as periodic testing, fiber degradation testing and network element control.

Periodic testing	To periodically detect fiber loss increase, fiber deterioration and water penetration.
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Fiber degradation tests	Perform measurement on fiber loss increase, fiber strain distribution and water location after receiving information from periodic testing.
Network element control	Identify fiber, transfer and splice fiber synchronously, if necessary.

In preventive maintenance, all activities are performed using spare (inactive) fibers or working (active) fibers that are multiplexed with the transmission signals without interfering with the transmission signals.

On the other hand, from the standpoint of post-fault maintenance, optical fiber cable maintenance involves reception of a transmission system alarm or trouble report from a customer, fiber fault testing, and cable repair/cable removal (that is, cable re-routing).

Therefore, optical fiber cable maintenance can be composed of the following:

- Surveillance;
- testing; and
- Control;

Fiber faults and their origins: Fiber faults may be classified into three types: fiber failure, fiber loss increase and fiber connector abnormality. Fiber failure may be caused by:

- Tensile strain and bending strain in a cable;
- Bending strain and torsion strain in a cable closure;
- Lateral stress in a crushed cable conduit

Fiber loss increase may be caused by:

- Micro bending loss increase due to fiber axial strain in a cable
- Fiber (macro) bending loss increase in a cable closure;
- Hydrogen absorption loss increase in cable or a cable closure
- Fiber connector abnormality may be caused by:
 - Tensile strain and a change in the fiber alignment.

Optical fibers in an installed cable have residual strains from tension, torsion and bending. Bent fibers in a closure suffer larger strains than those in a cable (as for fiber strain in installed cable, refer to Recommendation L.14 "Measurement method to determine the tensile performance of optical fiber cables under load"), and the fiber strength decreases accordingly.

Furthermore, the fiber strength deteriorates more rapidly if water penetrates the cable and the closure.

Two major origins, fiber residual strain and bending loss in the cable and the closure induce most of the fiber faults. Water penetration is believed to accelerate the possibility of fiber failure and fiber loss increase.

Therefore, appropriate actions in optical fiber cable maintenance are desired before fiber faults occurs by the two major origins.

Preventive maintenance: Conventional optical fiber cable maintenance has followed the concept of metallic cable maintenance, which is, if anything, neither effective nor efficient because the knowledge about the bit-error rate is insufficient to determine whether the trouble is occurring in the transmission equipment or in the optical fiber network. Consequently, a lot of time is taken in the series of work starting from reception of the trouble report to a return to normality.

A number of optical fiber cables have been introduced into subscriber networks in various countries. Consequently, a need has arisen to effectively and efficiently maintain these fiber networks. However, the concept for this differs from that of metallic cable maintenance. This is because optical fiber faults may be caused by fiber residual strain, fiber loss increase, and/or water penetration. If the origins of these causes could be detected in advance, it would be possible to take effective action and prevent faulty fibers. In fact, such maintenance which surveys fiber degradation (along with deterioration and loss increase) and conducts necessary fiber degradation testing and fiber transfer control before a fiber fault occurs is considered as preventive maintenance.

Compared with conventional cable maintenance which is activated after a trouble occurs, optical fiber cable maintenance takes action before a fiber fault occurs to ensure high reliability of the optical fiber cable network and therefore reduces the number of customer complaints and trouble reports. It also allows maintenance departments to plan works and reduces operation costs. The procedures for preventive maintenance are shown below:

- Periodic testing.

When an abnormality is found, the procedures continue as follows:

- Fiber degradation testing;
- Network element control;
- Return to normal operation.

Post-fault maintenance: Post-fault maintenance such as reception of a trouble report, fault testing, cable repair and cable removal has been the main part of conventional cable maintenance.

In a trunk/long-distance plant, when the optical fiber cable is damaged or an optical fiber is broken, action is taken immediately in response to an alarm from a transmission system or a customer complaint. In this case, the possibility of optical fiber cable maintenance is to re-route traffic to an alternate path, to perform testing to find the fiber fault location, and to utilize a restoration cable kit to make a temporary path across the damaged portion of the cable. The restoration cable is prepared in advance for rapid repair. The procedures for post-fault maintenance in the trunk/long distance plant are as follows:

- Reception of transmission system alarm;
- Re-routing;
- Fault distinction between fiber line and transmission equipment;
- Fiber fault testing;
- Craft dispatch;
- Cable repair;
- Repair verification;
- Return to normal operation.

In a local distribution plant, after reception of a trouble report from a customer and testing for the cable/fiber fault, repair is done by a restoration cable kit or transferring fiber. The procedures for post-fault maintenance in the local distribution plant is as follows

- Reception of trouble report from a customer;.
- Fault distinction between fiber line and transmission equipment;
- Fiber fault testing;
- Craft dispatch;
- Cable repair;
- Repair verification;
- Return to normal operation

Cable removal is in fact cable re-routing work due to a claim from a road administrator or a customer. When cable removal work is to be done, fiber transfer control to another fiber circuit, in a point-to-point system, is necessary. Fiber transfer control has an advantage that it

can transfer in parts of cables. In cable removal work, path transfer is done at both ends of all paths in the fiber cable, so the work area for path transfer is much more widely expanded than that for fiber transfer.

The process of cable removal is as follows:

- Preparation of a newly installed fiber to be transferred to;
- Transfer from the active fiber to a spare fiber
- Identification of the fiber to be transferred;
- Cutting the fiber and splicing with newly installed fiber;
- Testing of the spliced fiber;
- Transfer from the spare fiber to the spliced fiber.

Functions required for preventive maintenance:

Detection of fiber loss increase: In a trunk/long-distance plant, the condition of the optical fiber network is monitored using (an) active fiber(s) or (a) spare fiber(s) periodically. A light source and an optical power meter are used for monitoring purposes to detect automatically fiber loss increase caused by micro bending, or hydrogen absorption. In the case of (an) active fiber(s) the transmission signal as well as a monitoring signal exists on a Single-Mode (SM) fiber using Wavelength Division Multiplexing (WDM) components. The monitor wavelength is different from the transmission wavelength to prevent transmission from being interrupted.

In a local distribution plant, the condition of the optical fiber network is monitored using (an) active fiber(s) or (a) spare fiber(s) periodically. An Optical Time Domain time Reflectometer (OTDR) and reflection waveform analysis are used to detect automatically fiber loss increase. Reflection waveform analysis allows the maintenance centre to compare the monitoring trace with the reference trace such as the initial installation trace. In the case of (an) active fiber(s), the OTDR wavelength is different from the transmission wavelength to prevent service interruption.

Detection of fiber deterioration: Optical fibers in an installed cable have residual strains from tension, torsion and bending. Fiber deterioration means a decrease in the fiber strength from such strains. Therefore, functions are required to detect the condition of fiber deterioration.

Detection of water penetration: When a cable sheath and/or a cable closure are damaged, water penetration may occur. Such water may generate hydrogen which may lead to a hydrogen loss increase. In order to prevent water penetration into the cable itself, various cable structures can be used. The cable might be jelly-filled or contain Water-Blocking (WB)

materials. In the former case, the jelly blocks water from penetrating into the sheath at a cut or hole, and minimize the incidence of faults capable of being caused through water penetration. In the latter case, a water-blocking tape is used to prevent water penetration. If water penetrates the sheath at a cut or hole, the WB material swells and blocks further penetration of water.

A water sensor installed in an unfilled closure can detect water penetration. If water penetrates the closure, the water-absorbent material in the sensor expands and causes the fiber bender in the water sensor to bend the spare fiber; the macro bending loss of the fiber loss increases. This loss increase is detectable when the fiber is monitored.

An alternative procedure would be to use an unfilled cable structure and gas-pressurization of the cable and closure. The maintenance methods discussed in Part III of the Handbook "Outside Plant Technologies for Public Networks" would be used to protect these cables.

Functions required for preventive maintenance:

Measurement of fiber fault location: The standard testing tool for fault locating is the OTDR. The OTDR has enough resolution to measure back scatter over even the longest fiber. A fault point caused by loss increase is easy to locate using a testing light wave on an active fiber, as a remote unit to the fiber cable maintenance centre.

Measurement of fiber strain distribution: Fiber axial strain induces a change in the Brillouin frequency shift in fibers; functions are required to measure this change. Fiber strain distributions, especially tensile strain distributions, in fibers can be measured by Brillouin Optical fiber Time Domain Analysis (B-OTDA). Refer to COM VI-45, July 1991, "The new measuring method of fiber strain". Ways of measuring of other fiber strain distributions such as bending and torsion are under consideration.

Measurement of water location: The water-absorbent material in the sensor expands and causes a loss in the spare fiber due to macro bending. If the water sensor is identified beforehand, the location where water was penetrated can be measured the moment the fiber loss is monitored.

Functions required for post-fault maintenance

Fault distinction between transmission equipment and fiber line: When a system trouble occurs, action is taken in response to a customer complaint or an alarm from a transmission system. The monitoring system has the responsibility of determining whether the trouble is occurring in the transmission equipment or in the fiber line. Because the function of monitoring the fiber network quality is independent of the transmission equipment, it is possible to make this distinction.

Measurement of fiber fault location

Equipments to be maintained,

Operation, maintenance, basic servicing plan and repairing of (hardware and soft ware) equipments installed at Telecommunication control room but not limited to providing provide Software Updates/Bug Fixes, 8/5 (8 Hrs/5 working days) Telephonic Level 2 support, repair & return with a turnaround time of 30 days where in cost of repairs will be paid by GPCL on actual basis (subject to prior approval taken by the Bidder), basic customer issues such as analyzing the symptoms and figuring out the underlying problem, verifying physical layer issues, resolving username and password problems, uninstalling/reinstalling basic software applications, verification of proper hardware and software set up etc.

The equipments installed at Telecommunication control room and covered are:

- 1) 1 AOLT -4000 Chassis with Fan Tray 01
- 2) 2 AOLT -4000 Control Card 03
- 3) 3 AOLT -4000 Switch Card 03
- 4) 4 AOLT -4000 GPON Protected Path Line Card 05
- 5) Alphion EMS Software Bundle 01
- 6) 2X16 Out Door Splitters sc/pc 12
- 7) AONT 100 SFU (CPU) 28
- 8) AONT1040 SFU (CPU) 02
- 9) IP Communication switch (Siemens) 01
- 10) Band width & Billing management System 01
- 11) EMS Server Hardware (Windows X86-WinXp) for 0-10000 Subscribers. No Redundancy.
AEMS-WSRVX86LO-01
- 12) Fsv 336gv2_4_port_VPN Router (Firewall Inclusive) 01
- 13) Gsm 7224_200(L2 Managed Switch) 01
- 14) Laptop 02
- 15) UPS
- 16) All electrical switches and wirings (inside the telecom control room)
- 17) Generator etc.

SCOPE of WORK: In addition to above:

- (i) Annual operation, maintenance and repair contract charges for Total Telecom Network.
- (ii) On-site service includes the following :

Contractor will provide service support to the CUSTOMER, which includes taking the initial call from the CUSTOMER and completing proper diagnostic and problem resolution for CUSTOMERs problems, questions, and service requests. The scope of work comprising of Telecom equipment O&M Work & Outdoor Fiber Maintenance as follows.

- Monitoring all the parameters of the equipments installed.
- Preventive and corrective action if any related to all the equipment and structures.
- Periodical checks as per requirements.
- Checking of all the earth points of all the circuits.
- Coordination for faulty components replacement with OEM
- Servicing, repairing all telecom equipments, cables etc.
- Organizing Consumables on time of the cleaning staff.
- Maintaining daily attendance of the staff working in the plant.
- Reporting daily status of the site to the concerned customer's officer by email.
- Patrolling of the total route on regular basis daily twice.
- Coordinating and checking CPE on regular basis.
- Providing monthly billing to the developers.
- Replacing/restoration of the network/ Fibre cable jointing within the stipulated time.
- Providing Security 24hrs at equipment room.
- Maintaining incoming and outgoing registers of the material and Vehicle movement.
- Maintaining and reporting to the concerned site engineer about manpower movement.
- Daily cleaning of the control Room.
- Maintaining Log book of Repairs/Replacements.
- Maintaining and reporting to the concern site engineer about manpower movement.
- Maintaining records.
- Fiber cable maintenance including jointing and patrolling.

EQUIPMENT DEPLOYMENT:

- 1) Vehicle (jeep type): 01 No.
- 2) Splicing Tool Kit: 01 No.
- 3) OTDR machine: 01 No.
- 4) Remote Deign

EXCLUSIONS: Uninterrupted Power to Telecom control Room, bandwidth, Diesel to run the D.G. during power outages.

Replacement: In case of any equipment is not repairable; the bidder will have to obtain a certificate from OEM regarding the non-reparability of the particular equipment and submit the same to GPCL. If GPCL approves, the said equipment may be replaced and the replacement charges will be paid separately.

Section -4

Instructions to Bidders

4.1 Introduction

- a) The instructions for submitting proposals in response to the RFP are mentioned below:
- a. All bids must be accompanied by Bid security & bid processing fees as specified below and submitted on or before the prescribed date, at place and time given in the RFP. Bids submitted without Bid security & bid processing fees will be summarily rejected.
- b. Interested and eligible Bidders can download the bid document and further amendments if any freely available on www.gil.gujarat.gov.in and <https://gil.nprocure.com> and submit the same to <https://gil.nprocure.com> electronically on or before due date & time of the bid. Under no circumstances, physical bids will be accepted.
- c. The Bidder will have to remit Non refundable **Bid Processing Fees of Rs. 2950/- (Including G.S.T.) (Rupees Two Thousand Nine Hundred Fifty Only) and Earnest Money Deposit (E.M.D.) of Rs. 1,00,000/- (Rupees one Lakh only)** on or before **30.10.2017** up to 1500 hours in a sealed cover at GIL office with the heading **"Bid Processing fees and EMD for the RFP No. GIL/ GPCL O&M/2017 for Selection of Agency for Operation, Maintenance and Repair of Telecommunication equipments, entire Telecommunication Network and OFC cable from Santalpur to Charanka of the Solar Park at Charanka Village, Patan District, Gujarat on behalf of Gujarat Power Corporation Ltd., Gandhinagar."** Bid Processing fees should be in the form of demand draft in the name of "Gujarat Informatics Ltd." payable at Gandhinagar along with the covering letter.
- d. EMD as mentioned above shall be submitted in the form of Demand Draft OR in the form of an unconditional Bank Guarantee by Bank Guarantee (which should be valid for 9 months from the last date of bid submission) of any Nationalized Bank including the public sector bank or Private Sector Banks or Commercial Banks or Co-Operative Banks and Rural Banks (operating in India having branch at Ahmedabad/ Gandhinagar) as per the G.R. no. EMD/10/2016/328/DMO dated 01.05.2017 issued by Finance Department or further instruction issued by Finance department time to time; in the name of "Gujarat Informatics Ltd." payable at Gandhinagar (in the format specified in Annexure A) and must be submitted along with the covering letter.
- e. Pre-bid meeting will be held as mentioned in the bid. Bidders can seek clarifications on or before 5 days prior to Pre-Bid meeting date to Dy. General Manager (Technical), Gujarat Informatics Ltd., 8th floor, Block no. 1, Udyog Bhavan, Gandhinagar 382010 (Email: viveku@gujarat.gov.in). GIL will clarify and issue amendments if any to all the bidders in the pre-bid meeting. No further clarification what so ever will be entertained after the pre-bid meeting date.

2) **Validity of Proposals submitted**

The proposals submitted by the Companies/agencies shall remain valid for a period of 120 days from the date the financial bid opening. Proposals valid for shorter period may be rejected as non-responsive. GIL/GPCL, GoG may solicit the respondents' consent to an extension of RFP validity (but without the modification in their Proposal).

3) **Clarifications on proposals submitted**

During evaluation, GIL/GPCL, GoG may, at its discretion, ask the respondents for clarifications on their proposals. The Companies/agencies are required to respond within the time frame prescribed by GIL/EGVGVS, GoG.

4) Amendments to RFP Document

At any time prior to deadline for submission of proposals, GIL/GPCL, GoG may for any reason, modify the RFP document. The prospective respondents having received the RFP document shall be notified of the amendments through website and such amendments shall be binding on them.

5) Disqualification

GIL/GPCL, GoG may at its sole discretion and at any time during the evaluation of proposal, disqualify any respondent, if the Company:

- a. Submitted the proposal after the response deadline;
- b. Made misleading or false representations in the forms, statements and attachments submitted in proof of the eligibility requirements;
- c. Exhibited a record of poor performance such as abandoning works, not properly completing the contractual obligations, inordinately delaying completion or financial failures, etc. in any project in the preceding three years;
- d. Submitted a proposal that is not accompanied by required documentation or is non-responsive;
- e. Failed to provide clarifications related thereto, when sought;
- f. Submitted more than one proposal;
- g. Has been blacklisted by any Central / State Government (incl. its department/agency) or was declared ineligible by the Government of India/State/UT Government for corrupt and fraudulent practices.

6) Performance Bank Guarantee

The Successful bidder has to submit Performance Bank Guarantee @ 10% of total contract value within 15 days the date of issue of Purchase order/work order for the duration of contract period + extra 3 months of any Nationalized Bank including the public sector bank or Private Sector Banks or Commercial Banks or Co-Operative Banks and Rural Banks (operating in India having branch at Ahmedabad/ Gandhinagar) as per the G.R. no. EMD/10/2016/328/DMO dated 01.05.2017 issued by Finance Department or further instruction issued by Finance department time to time. (The draft of Performance Bank Guarantee is attached herewith). No interest shall be payable on the BG amount. The purchaser may invoke the above bank guarantee for any kind of recoveries, in case, the recoveries from the bidder exceed the amount payable to the bidder.

7) Contract Period

The Selection would be for an initial period of Two (2) year, subject to annual performance review.

After reviewing the necessity, the contract may be extended for further period of 1 year on the same rate.

8) Confidentiality

Information relating to the examination, clarification, comparison and evaluation of the proposals submitted shall not be disclosed to any of the responding Companies or their representatives or to any other persons not officially concerned with such process until the selection process is over. The undue use by any responding Company of confidential information related to the process may result in rejection of its proposal.

9) Disclaimer

Proposals received late will not be considered and will be returned unopened to the respondents. GIL/GPCL, GoG reserves the right to (a) reject any / all proposals without assigning any reasons thereof, b) relax or waive any of the conditions stipulated in this RFP document as deemed necessary in the best interest of the GIL/GPCL, GoG and the objective of the scheme without assigning any reasons thereof and c) include any other item in the Scope of work at any time after consultation in the pre-proposal meeting or otherwise.

4.2 Other Terms and Conditions:

- i. The selected Contractor will be fully and completely responsible to the GPCL headed by the designated Officer for all the deliverables.
- ii. The interested bidders shall furnish an affirmative statement as to the existence of, absence of, or potential for conflict of interest on the part of the bidder or any prospective subcontractor due to prior, current, or proposed contracts, engagements, or affiliations with the GIL/GPCL, GoG. Additionally, such disclosure shall address any and all potential elements (time frame for service delivery, resource, financial or other) that would adversely impact the ability of the bidder to complete the requirements as given in the RFP.
- iii. GPCL requires that the Contractors should provide professional, objective, and impartial advice and at all times hold the interests of the State Government paramount, strictly avoid conflicts with other assignments/jobs or their own corporate interests and act without any consideration for future work.
- iv. GPCL reserves the right to accept or reject any bid, to annul the entire bid process or reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected bidder (s) or any obligation to inform the affected bidder(s) the grounds for such decision. GPCL also reserves the right to negotiate with the successful bidder if necessary.
- v. If any of the proposed resources are found to be not performing or not meeting the expectations of the GPCL, the contractor shall find a replacement for the resource. GPCL will evaluate the replacement profile and indicate the acceptance / rejection of the profile.
- vi. The GPCL reserves the right to terminate the contract by giving a notice of one month if the performance of the Contractor is not found satisfactory. The Contractor shall be given a period of fifteen days to cure the breach or fulfill the contractual obligations, failing which GPCL shall notify the bidder in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the bidder is in default
- vii. The Contractor to be selected through this bid process will provide deliverables as indicated in this document and support GPCL as described in this document. The Contractor should note that as a part of requirement for this assignment the Contractor will share with GPCL all intermediate documents, drafts, reports and any other item related to this assignment. No work products, methodology or any other methods used by the Contractor should be deemed as proprietary and non-shareable with GPCL by the Contractor.
- viii. No part of this document including the Annexure can be reproduced in any form or by any means, disclosed or distributed to any person without the prior consent of GPCL. The information contained in this document is only disclosed for the purposes of enabling you to submit a proposal for this assignment. This document should not therefore be used for any other purpose. This document contains proprietary information furnished for evaluation purposes only; except with the written permission of the GPCL, such information may not be published, disclosed, or used for any other purpose. You acknowledge and agree that this document and all portions thereof, including, but not limited to, any copyright, trade secret and other intellectual property rights relating thereto, are and at all times shall remain the sole property of GPCL. The title and full ownership rights in the information contained herein and all portions thereof are reserved to and at all times shall remain with GPCL. Bidders must agree to take utmost care in protecting the proprietary and confidential nature of the information contained herein.
- ix. If at any stage of the tendering process or during the currency of the agreement, any suppression / misrepresentation of such information is brought to the knowledge of GPCL, then the Department will have right to reject the bid or terminate the agreement, as the case may be, without any compensation to the bidder.
- x. The bidder shall be deemed to have complied with all clauses in this RFP. Evaluation shall be carried out on the information available in the bid.

4.3 Conditions of contract

The operating clauses would emerge from the technical and financial processes finalized with the Contractor selected for the project. In addition, the Selection contract will inter-alia includes the following terms:

a) Definitions

In the Selection Contract, the following terms shall be interpreted as indicated:

"GPCL/GoG" means the Gujarat Power Corporation Ltd., or any other authorized representative of the GPCL/GoG.

The "Contract" means the agreement entered into between the GPCL/GoG and the Selected Contractor as recorded in the Contract Form signed by the GPCL/GoG and the Selected Consulting firm, including all attachments and annexure thereto and all documents incorporated by reference therein.

b) Deliverables

The Deliverables of the project would be as per details given in the Deliverables subsection of this document. The final list of Deliverables would be finalized during contract negotiation with the selected Contractor.

c) Payment Terms and Schedule

The payment would be made on equated Quarterly basis (8 Quarters) for the 2 year period starting from the beginning of first three months. The quarterly payment raised will be paid after receipt of invoice and getting the same approved by competent authority of GPCL. A pre-receipted bill in triplicate (for the audit and independent monitoring) shall be submitted.

d) Company and Contractor Representative

(a) Company's Contract Administrator (hereinafter referred to as the "Contract Administrator") shall be the person so appointed by Company and shall be responsible for administering this Contract on Company's behalf and for issuing any and all instruction pertaining to the Work hereunder. Company may change the Contract Administrator from time to time and notify the Contractor in writing of such change.

(b) For the Term of the Service, Company shall appoint its representative at the work site who is authorized to represent Company (hereinafter referred to as the "Company Representative"). Company's representative shall have the right at all times to receive all information pertaining operations, records, reports and any other information on any operations performed under this Contract. The Company representative shall be entitled to inspect all operations performed hereunder and to witness and to check all measurements and tests. Company Representative may delegate all or part of his responsibilities to a nominated deputy. Company shall inform Contractor in writing, of the limits of authority of such a deputy or deputies. Company may at any time change Company Representative, and shall notify Contractor accordingly.

Within five (5) days from the commencement of Construction under the Contract or date of signing of this Contract, whichever is earlier, Contractor shall nominate a representative, who will be a Contractor's employee authorized to represent Contractor with respect to this Contract (hereinafter referred to as the "Contractor's Contract Administrator"). Such representative shall be knowledgeable about Project activities and should be duly authorized to represent the Contractor at all times during the progress of the Work and to receive and to act on any request made by Company in the performance of the Work including any emergency instructions, pursuant to the terms of this Contract subject to the approval of the Company. Any proposed change in appointment of Contractor's Representative shall be notified by Contractor to Company

in writing. No such change shall be made without the written approval of Company Representative, which shall not be unreasonably withheld.

Contractor's Contract Administrator shall have full authority concerning the supply of Contractor's equipment and materials and shall have full authority to proceed with the work and every part thereof in conformity with this Contract. Company shall be entitled to rely on all decisions and positions of Contractor's Contract Administrator as those of Contractor.

All correspondence from either party to the other party shall be addressed to its Contract Administrator, unless provided otherwise in the Contract.

e) Performance of Construction

Contractor shall perform the Construction at times and places in accordance with the provisions of the Contract and as per industry standard. The Contractor shall be deemed to have a full understanding and knowledge of the nature and extent of the Construction and to have satisfied itself completely as to the conditions under which the Construction are to be performed including, but not limited to, means of access, conditions affecting the supply of labour and materials, security, fire and safety regulation, local rules and regulations for import and export of Equipment and all matters whatsoever affecting, or which may affect, the provision of Construction. The Contractor shall, at all times, keep its work areas in a neat, clean and safe condition. Contractor warrants that it is aware of the entire contract area, environment, work site, zoning conditions and other regulations legal description of the tract where Work is to be carried out and shall provide all the necessary Construction in accordance with the specifications prescribed in this Contract. Contractor at its own cost shall obtain all requisite permits and approvals under applicable law for the performance of the Work including those relating to Construction, transportation, traveling of manpower etc.

Contractor's Qualifications to do Business:

Contractor represents that it is lawfully registered, domiciled and fully qualified to do business in the Country of Operations and has all necessary permits and licenses required by the Government to perform the Work. Contractor shall, at its sole cost and expense, cause such registration, domiciliation, permits and licenses to continue in full force and effect during the term of this Contract.

Contractor shall diligently perform the Construction in a skillful and workman like manner and in accordance with the established good and safe practices of the international industry throughout the term of the Contract. Contractor covenants, subject always to the provisions of Clause 4.5, to comply with all instructions of Company or its designated personnel consistent with the provisions of this Contract. Company shall have the option to select or decline any of Contractor's personnel at Company's sole option for any reason whatsoever and Contractor shall as soon as possible replace such personnel at its cost.

Contractor warrants that the Equipment supplied will be fully certified, will meet all relevant government standards, International Industry Standard, will have been tested and will be in full working order and will not have any defect in workmanship. Contractor further covenants that the Equipment will perform efficiently and continuously and that a sufficient stock of spare parts to ensure such performance will be available at the work location. The Company may, at any time upon giving notice to the Contractor, require the Contractor to make changes to the Contractor's Equipment as specified in such notice. Upon receipt thereof, the Contractor shall effect such changes as soon as practicable.

Contractor shall, regularly and in no event less often than recommended in the manufacturer's specifications inspect, service and maintain each item of Equipment throughout the Term. Contractor shall maintain records of such activities evidencing planned and actual compliance with this requirement.

Contractor shall perform the Construction as an independent contractor. Contractor is not and shall not become or represent itself as co-venture, partner, employee or agent of Company.

Contractor shall keep detailed records of all Construction performed including records evidencing planned and actual compliance with clause 4.4. Contractor shall present such records to Company for inspection on request. Contractor shall produce a final job report, which will be presented to Company on completion of the Construction.

The Contractor shall observe and comply with all statutory provisions, Company's policies and procedures applicable to the Construction from time to time, standing orders, International/Indian codes, regulations and instructions relating to health, safety and environment. Company Representative may require formal meetings from time to time and Contractor or his nominated deputy fully conversant with the health; safety and environment requirements shall attend such meetings.

Contractor shall furnish to Company an accurate record of the Work performed on a daily basis as per Company's requirements.

Contractor shall maintain, at its own cost, adequate stock levels of its items and replenish these as necessary to repair all its items and provide adequate spare parts and materials which are required thereof to perform the Construction effectively. Contractor will make records of such equipments, items as spare available to Company. Company shall, at any time, have the right to request Contractor to see the spare parts available at site.

Contractor shall be responsible for the transportation of Contractor's equipment and personnel.

Contractor shall provide First Aid medical attention for Contractor, Sub-contractor's personnel at the Work Site and medical attention for Contractors personnel. The Contractor shall keep relevant medical records, wages books and time sheets and full records of all personnel employed in connection with the Work. The Company shall be entitled at all times to inspect and take copies from all or any such documents.

Contractor shall be responsible for supplying all fuel, electricity, petrol, oils and lubricants used for the Construction.

Contractor shall be responsible for providing suitable water for the Work Site and camp.

Company shall have the right to inspect Contractors Equipment at any time to observe its condition and may notify Contractor of any apparent defects therein. Contractor shall take immediate steps to rectify the defects at its cost. However, such inspection by Company shall not imply any acceptance of the condition of the Contractor Equipment by Company and Contractor shall not be relieved of its obligations under this Contract by any such inspection. Contractor shall keep and maintain upto-date records of all Contractors' Equipment and material at the Work Site reflecting its condition and quantity and will make such records available to Company whenever requested.

The Contractor shall take out its Unit including all the equipments and clear all debris from the Work Site within one (1) week of completion of the Construction in accordance with the Contract or as directed by Company.

Reports: the Contractor shall furnish to Company the following data, information and reports:

- a) Immediate reports on occurrence of special events of importance such as fire, accident, sabotage or acts of God involving

loss of life or serious property damage, strikes and riots, significant competitor activities, or Government actions threatening or adversely affecting rights and interests of Company. Such immediate reports or notices shall be given by telex, telegraph, e-mail, telephone or equivalent means and confirmed in writing.

b) Such other data, information and reports as may be required by Company to be submitted to its Co-ventures or the Government of India under the JOA or the PSC.

Company may as a condition precedent to making any payments hereunder, require from the Contractor satisfactory evidence that all of Contractor's labor, materials, tax, contractual and other obligations arising out of the performance of Work under this Contract have been fully satisfied and discharged and Contractor shall comply with all such requirements as per laws. The Contractor shall indemnify the Company in case of his failure in meeting the statutory requirements as mentioned above. For repeated nonperformance of Construction or lack of Construction by the Contractor or failure of equipment/s or part thereof supplied by the Contractor or procured from the Contractor, Company shall immediately terminate the Contract by issuing a Notice.

Key personnel of the Contractor specified in the Contract shall not be replaced without the prior approval of the Company. Any replacement should be covered by a reasonable handover period. The Contractor shall ensure that such key personnel and supervisory personnel of the Contractor and Subcontractors shall read, write and speak fluent English.

The Contractor shall ensure that all employees of the Contractor and any Subcontractor engaged in the performance of the Work comply with Applicable Laws including immigration laws, labor laws, etc. and where required are in possession of a visas or other valid work permit for the duration of the Contract. When requested details of such work permits shall be submitted to the Company prior to the employee being engaged in the Construction. To the extent that such visas or permits are required to be issued by any Government Authority, the Company shall endeavor to assist the Contractor to obtain such visas and permits. The costs of obtaining such visas or permits shall be borne by the Contractor.

The Contractor shall at all times maintain strict discipline and good order among its personnel and that of its Affiliates, agents or its subcontractors. The Contractor undertakes to ensure that all such personnel comply with all of the following rules in the Contract Area:

- (i) It is forbidden to bring into or use in the Contract Area fire arms or unauthorized explosives
- (ii) It is forbidden to possess or consume drugs, alcohol or other intoxicants or to be under their influence and the safety or quality of work shall not be jeopardized
- (iii) It is forbidden to indulge in fighting, horseplay or malicious damage, careless or reckless behavior
- (iv) Honor and observe Indian standards of morality and behavior

f) Inspections, Tests and Certification

Contractor shall maintain at its sole cost test certification on all Contractor's Equipment and spare parts and ensure the structural and operational integrity of the Equipment, particularly any load bearing or pressure containing Equipment. The contractor shall submit the relevant certificates of all the equipments and machinery to the company.

Company or its authorized representative shall be entitled to inspect and/or test the Equipment at Contractor's premises and/or at any site where Construction are being performed. Company reserves the right to reject any and all Equipment, which is not in accordance with the specifications and provisions of the Contract. Acceptance of the Equipment shall not affect Contractor's obligations to repair and maintain.

g) Mobilization/ Delivery / Performance

Contractor shall provide Personnel and Equipment at the place and time as specified in the Contract or as otherwise designated by Company. Equipment shall be supplied with proper packing and marking. Contractor's Personnel shall have proper identification, visas and passport papers. The Contractor shall be responsible for transportation of tools / equipment at Contract site for specified work and necessary insurance shall be taken for transportation of tools / equipments.

All containers, packing cases, boxes, tins, wrappings and other packaging material supplied by Contractor shall be considered as non-returnable and their cost as having been included in the Rates set out in the Rates unless otherwise stated therein. On completion of Work, Contractor shall be responsible for repacking the Equipment ready for transportation and removal of same and advise Company accordingly.

If Contractor fails for reasons other than Force Majeure or within Company's control to provide/ mobilize/ deliver personnel or Equipment or Construction or any part thereof, within the time or times as specified in the Contract or any agreed extension thereto, Company shall be entitled, after reasonable notice to terminate the Contract or cancel any part of the Contract at any time.

On completion or earlier termination (for whatsoever reason) of the Work, the Contractor shall demobilize its Equipment and Personnel forthwith.

h) QUALITY CONTROL

Identifying Defects

The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.

The Contractor shall permit the Employer's Technical auditor to check the contractor's work and notify the Engineer and Contractor of any defects that are found. Such a check shall not affect the Contractor's or the Engineer's responsibility as defined in the Contract Agreement.

Third Party Inspection and Testing

All materials equipment's procured by the Contractor shall be subjected to Third party inspection. The Employer will fix the Third party agency for inspection. The inspection charges will be paid directly by the Board to the Third party agency and the rates offer shall be exclusive of Third party inspection charges. The work shall be carried out as per QAP enclosed to Technical Specification and also relevant ISS. Prior to commencement of the work, the Engineer, in consultation with the Employer, shall inform the contractor the name of the Third party agency that will be authorized to conduct the independent inspections on behalf of the Engineer.

In addition the Third party would also inspect the works at site and the payment to the contractor would be made only after certification of both Company Engineers and Third party agency.

If the Engineer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does,

the Contractor shall pay for the test and any samples. If there is no Defect the test shall be a Compensation Event.

i) Correction of Defects

The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Engineer's notice.

j) Uncorrected Defects

If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

Note: Where in certain cases, the technical specifications provide for acceptance of works within specified tolerance limits at reduced rates, Engineer will certify payments to Contractor accordingly.

4.4 Commercial Terms:

A) Indemnification:

The Contractor shall indemnify GIL/GPCL against all claims arising out of a court order or arbitration award for infringement of patent, trademark/ copy right arising from the use of the supplied services or any part thereof. Either party will accept liability without limit (1) for death or personal injury caused to the order party by its negligence or the negligence of its employees acting in the course of their employment; (2) any other liability which by law either party cannot exclude. This does not in any way confer greater rights than what either party would otherwise have at law.

- a) The Work Order does not contemplate any consequential, indirect, lost profit, claim for tort or similar damages of any form to be paid by the Consulting Company to GIL/GPCL or any other organizations
- b) Notwithstanding anything to the contrary contained in the Work Order, in no event will the Consulting Company be liable to GIL/GPCL whether a claim be in tort, contract or otherwise; (a) for any amount in excess of 100% of the total professional fees payable for the respective Project
- c) No action regardless of form, arising out of this Contract, may be brought by either party; more than one year after the cause of action has accrued.

B) Confidentiality

- a) Confidential Information: Each party and their respective personnel may, in the course of their business relationship with the other, acquire or be exposed to Confidential Information. "Confidential Information" means and includes all information relating to the disclosing party including but not limited to information, knowledge or data of an intellectual, technical, scientific, financial, cost, pricing, commercial or marketing nature which is not in the public domain and in which the disclosing party has a business, proprietary or ownership interest or has a legal duty to protect, whether or not received from a third party in whatever form, including but not limited to technical data/know-how, drawings, photographs, specifications, standards, manuals, reports, formulae, algorithms, processes, information, lists, trade secrets, computer programs, computer software, computer data bases, computer software documentation,

quotations and price lists, research products, inventions, development, processes, engineering techniques, strategies, customers (including any Personal Information and/or other non-public personal information about such customers and any list, description or other grouping of customers that is derived using any such Personal Information and/or other non-public personal information), internal procedures, employees, business opportunity which the disclosing party considers to be confidential and which is identified by the disclosing party as confidential, or which might fairly be considered to be of a confidential nature and which may be furnished by either party during the period of this Agreement. This clause will be applicable subject to RTI Act or any other law of the State/Central Govt.

- b) The receiving party undertakes to (i) hold all such Confidential Information in strictest confidence, (ii) not to disclose such Confidential Information either in whole or in part to any person other than those of its officers, employees and agents who need to know such Confidential Information for the purpose authorized hereunder provided that each such officer, employee or agent has agreed in writing to maintain the confidentiality of the such Confidential Information in accordance with the terms hereof or (iii) not to use such Confidential Information for any purpose whatsoever save as may be strictly necessary in connection with the Services provided under this Agreement. This clause will be applicable subject to RTI Act or any other law of the State/Central Govt.
- c) Notwithstanding the foregoing, nothing in this clause shall prevent a receiving party from treating a Confidential Information as non-confidential, if such information is: in the lawful possession of, or was known to, the receiving party prior to its receipt, without an obligation to maintain its confidentiality; is or becomes generally known to the public without violation of this provision; obtained by the receiving party from a third party (i) who does not require the receiving party to refrain from disclosing such information and (ii) who has the right to disclose it, without the obligation to keep such information confidential; independently developed by the receiving party or its employees without the use of Confidential Information; is required to be disclosed by the receiving party under the compulsion of law, or by order of any court or government or regulatory body to whose supervisory authority the receiving party is subject; provided that, in any such event, the receiving party shall give the disclosing party a notice in writing as soon as practicable (which shall be, subject to the applicable law, prior notice where possible and not later than 30 days after the disclosure) and the receiving party shall use its best effort to obtain assurance that the disclosed information will be accorded confidential treatment to the maximum extent possible under law. This clause will be applicable subject to RTI Act or any other law of the State/Central Govt.

D) Liquidated Damages

Due to negligence of act of the Contractor, if the Employer suffers losses, damages the quantification of which may be difficult, and hence the amount not exceed 10% of the total value of the contract shall be construed as reasonable estimate of the damages and Contractor agrees to pay such liquidated damages, as defined hereunder as per the provisions of this agreement.

If the agreement is terminated, the employer may levy liquidated damages of an amount equal to 10% of total cost of the services or as may be determined by the Employer at the time of termination.

E) Limitation of Liability

In no event shall either party be liable for any indirect, incidental, consequential, special or punitive loss or damage including but not limited to loss of profits or revenue, loss of data, even if the party shall have been advised of the possibility thereof. In any case, the aggregate liability of the bidder, whatsoever and howsoever arising, whether under the contract, tort or other legal theory, shall not exceed the total charges received as per the Contract, as of the date such liability arose, from the Purchaser, with respect to the goods or services supplied under this Agreement, which gives rise to the liability.

F) Penalty

If the Contractor does not deploy the required minimum specified quantity as well as quality specified in the RFP or a person deployed is not reporting the duty, there would be a penalty per person per day as defined below and will be deducted from the quarterly payment. If the above incidence occurs three times in a one year, GPCL, Government of Gujarat may reserve the right to terminate the contract and no payment would be done for the services rendered in that particular quarter.

The Contractor has to ensure that the minimum number of personnel required as specified in the scope. The Contractor shall ensure that alternate arrangements are made in advance in case of absence of deployed staff. Penalty of Rs. 5000 per person per day for Engineer/supervisor & Rs. 2000 per person per day for other designated employees & for a reported absence of resources shall be levied & the said amount will be deducted from quarterly payment.

The contractor has to respond to the complaint within 24 hours and resolve the complaint within 72 hours of the complaint made. If the contractor fails to do so, penalty of Rs. 1000/- per equipment per day will be deducted from the quarterly payment.

4.5 Miscellaneous terms & Conditions

- a) The end product of the work assignment carried out by the Consulting Company, in any form, will be the sole property of GIL/GPCL, GoG.
- b) The Contractor shall not outsource the work to any other associate / franchisee / third party under any circumstances without the prior approval of GIL/GPCL, GoG.
- c) The Contractor shall perform the services and carry out its obligations under the contract with due diligence and efficiency, in accordance with generally accepted techniques and practices used in the industry and with professional engineering and training / consulting standard recognized by national / international professional bodies and shall observe sound management practice. It shall employ appropriate advanced technology and safe and effective methods. The CONSULTING Company shall always act, in respect of any matter relating to this Contract, as faithful advisors to GIL/GPCL, GoG and shall at all times, support and safeguard GIL/GPCL legitimate interests.
- d) The contractor automatically agrees with GIL/GPCL, GoG for honoring all aspects of fair trade practices in executing the work orders placed by GIL/GPCL, GoG.
- e) In the event the Contractor or the concerned Division of the company is taken over / bought over by another company, all the obligations under the agreement with GIL/GPCL, GoG, should be passed on the compliance by the new company new Division in the negotiation for their transfer .

A) Force Majeure

- a) Force majeure clause shall mean and be limited to the following in the execution of the contract placed by GIL/GPCL, GoG:
- War / hostilities
 - Riot or Civil commotion
 - Earth quake, flood, tempest, lightning or other natural physical disaster
 - Restriction imposed by the Government or other statutory bodies, which is beyond the control of the Contractor, which prevent or delay the executive of the order by the contractor
- b) The Contractor shall advice GIL/GPCL, GoG in writing, duly certified by the local Chamber of Commerce, the beginning and the end of the above causes of delay, within seven days of the occurrence and cessation of the force majeure conditions. In the event of a delay lasting for more than one month, if arising out of clauses of force majeure, GIL/GPCL, GoG reserve the right to cancel the contract without any obligation to compensate the Contractor in any manner for what so ever reason, subject to the provision of clause mentioned.

B) Arbitration

In case of dispute, if the parties fail to decide upon a sole arbitrator, such a dispute shall be referred to a panel of three arbitrators wherein each party shall appoint one arbitrator and the two arbitrators shall appoint the third member. Arbitration and Conciliation Act, 1996 shall be the governing law for arbitration proceedings. Nothing contained in this Agreement shall prevent a party from approaching an appropriate court of law without exhausting the remedy of arbitration to bring in an action for specific relief or other equitable relief or interim relief however the Jurisdiction will be Gandhinagar (Gujarat) only.

C) Applicable Law

The contract shall be governed by the laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such commercial dealings/processing.

D) Refund of EMD and Submission of BG

- 1) The Earnest Money Deposit (EMD) will be refunded as follows.
- a. Unsuccessful bidder's EMD will be discharged/ returned as promptly as possible but not later than 15 days after the expiration of the period of bid validity OR upon the successful Bidder signing the Contract, and furnishing the Performance Bank Guarantee @ 10% of the total order value as prescribed by GIL, whichever is earlier.
 - b. The successful Bidder's Bid security will be returned within 60 days after the bidder's signing contract & submitting the performance security & offer of material for inspection.

E) Forfeiture of Earnest Money Deposit

The E.M.D. may be forfeited:

- (a) if a Bidder withdraws its bid during the period of bid validity
- (b) in case of a successful Bidder, if the Bidder fails:
 - (i) to sign the Contract as mentioned above or
 - (ii) to furnish performance bank guarantee as mentioned above or
 - (iii) If the bidder is found to be involved in fraudulent practices.

If the successful bidder fails to submit the Performance Bank Guarantee & sign the Contract Form within prescribed time limit, the EMD of the successful bidder will be forfeited.

GIL also reserves the right to blacklist such bidder from participating in future tenders if sufficient cause exists.

F) Termination for Default

The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Bidder, terminate the Contract in whole or part:

- a) if the bidder fails to deliver any or all of the services mentioned in the bid, or within any extension thereof granted by the Purchaser or
- b) if the Bidder fails to perform any other obligation(s) under the Contract/Purchase order.
- c) If the Bidder, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

“Corrupt practice” means the offering, giving, receiving or soliciting of anything of value of influence the action of a public official in the procurement process or in contract execution.

“fraudulent practice : a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the purchaser, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the purchaser of the benefits of free and open competition;”

G) Exit Clause

Company, in the event forms a trust and hand over the Solar park to it, then, it shall have an option to either close the Contract or continue the present contract as per the decision of the proposed trust. In the event, the trust wishes to have a separate contract, it shall have the right to do so without any encumbrances thereon as per the present contract. The foregoing termination clauses shall apply in that case.

4.6 Evaluation of the bids:

Pre-qualification Evaluation: GPCL/GIL will examine the Proposals to determine whether they are complete, whether any computational errors have been made, whether the documents have been properly signed, and whether the proposals are generally in order.

Prior to the detailed evaluation, GPCL/GIL will determine the substantial responsiveness of each Proposal to the Bid Document. For purposes of these Clauses, a substantially responsive Proposal is one which conforms to all the terms and conditions of the Bid document without any deviations. GPCL’s determination of a Proposal’s responsiveness is based on the contents of the Proposal itself without recourse to extrinsic evidence.

A Proposal determined as not substantially responsive will be rejected by GPCL/GIL and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

Evaluation and comparison of proposals

The Technical Bids will be first evaluated. The Price bid of the Technically qualified bidder shall only be opened. GPCL/GIL’s decision on evaluation and comparison of proposal will be final and binding to the Bidder.

Section-4

Bid Processing Fees & EMD Details:

Sr. No.	Item	Amount in Rs.	Name of the Bank & Branch	Demand Draft No./BG No.
1	Bid Processing Fees			
2	Earnest Money Deposit (EMD)			

ELIGIBILITY CRITERIA

Form: E1 Financial Capabilities

Turnover (Rs. In Crores)			Net worth (in Rs.)
2014-2015	2015-2016	2016-2017	2016-2017
Note: Please fill this form and upload the audited Annual Accounts for the last three financial years. In Case of Unaudited Balance sheet for the Financial year 16-17, provisional CA certificate is allowed.			

Form: E2 Experience in Project

Sr. No.	Name & Address of the Customer	Description of work	Starting Date of Project	Completion Date of the Project	Scope of Work	Value of the project in Rs.
1						
2						
Note: <ul style="list-style-type: none"> ❑ Please fill this form & upload the copy of purchase order indicating the project value, customer contact details, customer completion certificate, customer satisfaction certificate etc. ❑ Please mention only those projects which meet the criteria of eligible bidder. 						

Form E4: DETAILS OF PROPOSED EQUIPMENTS, TOOLS & TACKLES

The Bidder shall submit herein details of equipment, tools, tackles proposed to be deployed for this work and shall indicate in each case whether the same (A) already owned by Bidder and available for use of this Contract. (B) Anticipated to be hired (C) anticipated to be purchased. In case of (A) present location shall be stated. In case of (B) and (C) name and location of lending agency or supplier shall be stated.

Item to be deployed	description make, model and capacity	numbers	year of manufacture	category (A) or (B) or (C) above	location	Remarks

Form: E5 Clause-by-Clause Compliance Statement

Sr. No.	RFP Section	RFP Clause No.	RFP Clause	Page No.	Complied/ Not Complied	Comments if any
1	Project Profile & Objective					
2	Eligibility Criteria					
3	Scope of Work					
4	Instructions to Bidders					
5	Technical Specifications & Format of forms					
6	Schedule of Requirement: Price Bid					
7	Performa of Performance Bank Guarantee					
8	Special Conditions of Contract					
<p>Note:</p> <ul style="list-style-type: none"> ❑ Bidder shall not use any other words except complied or not complied. The words like noted, seen, partially complied etc. will not be acceptable. ❑ Please mention all the clause of RFP with clause no. in this form mentioning Complied OR Not Complied. 						

Bid letterform

Performa of Compliance letter

(Shall be submitted a scanned copy on Bidder's letterhead duly signed by Authorized signatory)

Date:

To,
DGM (Tech)
Gujarat Informatics Ltd.
Block-1, 8th Floor,
UdhyogBhavan, Gandhinagar.

Sub: Compliance with the Bid terms and conditions, specifications and Eligibility Criteria

Ref: Bid for Selection of Agency for Operation, Maintenance and Repair of Telecommunication equipments, entire Telecommunication Network and OFC cable from Santalpur to Charanka of the Solar Park at Charanka Village, Patan District, Gujarat on behalf of Gujarat Power Corporation Ltd., Gandhinagar.

Dear Sir,

With reference to above referred bid, I, undersigned <<Name of Signatory>>, in the capacity of <<Designation of Signatory>>, is authorized to give the undertaking on behalf of <<Name of the bidder>>.

We wish to inform you that we have read and understood the technical specification and total requirement of the above mentioned bid submitted by us on **xx.xx.2016**.

We hereby confirm that all our quoted items meet or exceed the requirement and are absolutely compliant with specifications mentioned in the bid document.

We also explicitly understand that all quoted items meet technical specification of the bid and that such technical specification overrides the brochures/standard literature if the same contradicts or is absent in brochures.

In case of breach of any bid terms and conditions or deviation from bid specification other than already specified as mentioned above, the decision of GIL Tender Committee for disqualification will be accepted by us.

Thanking you,

For<Name of the bidder>>

<<Authorized signatory>>

<<Stamp of the bidder>>

Note: This form should be signed by authorized signatory of bidder.

Section 5: Schedule of Requirement: Price Bid

No.	Description	Unit (A) (For 01 year only)	Amount (in Rs.) (w/o tax) (B) For 01 year only	Total Amount for 2 year (in Rs.) (w/o tax) (C=2*(A*B)) (For 02 year only)	G.S.T. (In %)
1	Operation, Maintenance and repairing of Telecommunication System, entire Network and OFC cable from Santalpur to Charanka for Solar park at village Charanka, Dist. Patan, Gujarat. (for 02 year with provision of extension for another 01 year on the same rate, terms and conditions) covering but not limited to 32 solar projects of 600MW capacity and 05 upcoming solar projects of solar projects of 190MW capacity. All totaling to 790MW	Lump sum			
2	Complete Telecommunication Equipment's Basic AMC charges. (Faulty component replacement charges will be paid separately). The equipments cover:				
	1 AOLT -4000 Chassis with Fan Tray 01	01			
	2 AOLT -4000 Control Card 03	03			
	3 AOLT -4000 Switch Card 03	03			
	4 AOLT -4000 GPON Protected Path Line Card 05	05			
	Alphion EMS Software Bundle 01	01			
	2X16 Out Door Splitters sc/pc 12	12			
	AONT 100 SFU (CPU) 28	28			
	AONT1040 SFU (CPU) 02	02			
	IP Communication switch (Siemens) 01	01			
	Band width & Billing management System 01	01			
	EMS Server Hardware (Windows X86-WinXp) for 0-10000 Subscribers. No Redundancy. AEMS-WSRVX86LO-01	01			
	Fsv 336gv2_4_port_VPN Router (Firewall Inclusive) 01	01			
	Gsm 7224_200(L2 Managed Switch) 01	01			
	Laptop 02	02			
	IP PABX – 01	01			
	Switches and its supporting sub	Lump sum			

	All electrical switches and wirings (inside the Telecom control room).	Lump sum			
	-48v DC battery Bank -01	01			
	PIU -01	01			
	Inverter 2kva -01	01			
	15kva DG (Diesel Generator)	01			
	UPS	01			
3	Spares required for Telecom network maintenance. 1. 24f BJC – 10 numbers. 2. RCC jointing chambers -10 numbers.	10 numbers 10	1. 2.		1. 2.
	TOTAL				

Note:

- 1. L1 will be the lowest sum total of rates of all line items without tax.**
- 2. Successful Bidder will have to supply/provide goods with an Invoice from a place located within State of Gujarat.**
- 3. The quantities mentioned above are for bid evaluation purpose only. The actual quantity may vary depending upon actual ground situation, specific requirement and as per designed document.**
- 4. Payment for actual ordered quantity will be released.**

Annexure A

Format of Earnest Money Deposit in the form of Bank Guarantee

Ref: Bank Guarantee No.
Date:

To,
DGM (Technical)
Gujarat Informatics Limited
8th Floor, Block -1, Udyog Bhavan,
Sector - 11, Gandhinagar - 382017
Gujarat, India

Whereas ----- (here in after called "the Bidder") has submitted its bid dated ----- in response to the RFP NO.: GIL\GPCL O&M \2017 DATE:07.10.2017 for Selection of Agency for Operation, Maintenance and Repair of Telecommunication equipments, entire Telecommunication Network and OFC cable from Santalpur to Charanka of the Solar Park at Charanka Village, Patan District, Gujarat on behalf of Gujarat Power Corporation Ltd., Gandhinagar KNOW ALL MEN by these presents that WE ----- having our registered office at ----- (hereinafter called "the Bank") are bound unto the _____, Gujarat Informatics Limited in the sum of ----- for which payment well and truly to be made to Gujarat Informatics Limited , the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this -----day of -----2017.

THE CONDITIONS of this obligation are:

1. The E.M.D. may be forfeited:
 - a. if a Bidder withdraws its bid during the period of bid validity
 - b. Does not accept the correction of errors made in the tender document;
 - c. In case of a successful Bidder, if the Bidder fails:
 - (i) To sign the Contract as mentioned above within the time limit stipulated by purchaser or
 - (ii) To furnish performance bank guarantee as mentioned above or
 - (iii) If the bidder is found to be involved in fraudulent practices.
 - (iv) If the bidder fails to submit the copy of purchase order & acceptance thereof.

We undertake to pay to the GIL/Purchaser up to the above amount upon receipt of its first written demand, without GIL/ Purchaser having to substantiate its demand, provided that in its demand GIL/ Purchaser will specify that the amount claimed by it is due to it owing to the occurrence of any of the abovementioned conditions, specifying the occurred condition or conditions.

This guarantee will remain valid up to 9 months from the last date of bid submission. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the OWNER/PURCHASER and further agrees that if this guarantee is extended for a period as mutually agreed between bidder & owner/purchaser, the guarantee shall be valid for a period so extended provided that a written request for such extension is received before the expiry of validity of guarantee.

The Bank shall not be released of its obligations under these presents by any exercise by the OWNER/PURCHAER of its liability with reference to the matters aforesaid or any of them or by

reason or any other acts of omission or commission on the part of the OWNER/PURCHASER or any other indulgence shown by the OWNER/PURCHASER or by any other matter or things.

The Bank also agree that the OWNER/PUCHASER at its option shall be entitled to enforce this Guarantee against the Bank as a Principal Debtor, in the first instance without proceeding against the SELLER and not withstanding any security or other guarantee that the OWNER/PURCHASER may have in relation to the SELLER's liabilities.

Dated at _____ on this _____ day of _____ 2017.

Signed and delivered by

For & on Behalf of

Name of the Bank & Branch &
Its official Address

Approved Bank: Any Nationalized Bank including the public sector bank or Private Sector Banks or Commercial Banks or Co-Operative Banks and Rural Banks (operating in India having branch at Ahmedabad/ Gandhinagar) as per the G.R. no. EMD/10/2016/328/DMO dated 01.05.2017 issued by Finance Department or further instruction issued by Finance department time to time.

Section 6

**Performa of Contract-cum-Equipment
Performance Bank Guarantee**
(To be stamped in accordance with Stamp Act)

Ref:

Bank Guarantee No.

Date:

To

Name & Address of the Purchaser/Indenter

Dear Sir,

In consideration of Name & Address of the Purchaser/Indenter, Government of Gujarat, Gandhinagar (hereinafter referred to as the OWNER/PURCHASER which expression shall unless repugnant to the context or meaning thereof include successors, administrators and assigns) having awarded to M/s. (hereinafter referred to as the "SELLER" which expression shall unless repugnant to the context or meaning thereof include their respective successors, administrators, executors and assigns) the supply of _____ by issue of Purchase Order No..... Dated issued by Gujarat Informatics Ltd. ,Gandhinagar for and on behalf of the OWNER/PURCHASER and the same having been accepted by the SELLER resulting into CONTRACT for supplies of materials/equipments as mentioned in the said purchase order and the SELLER having agreed to provide a Contract Performance and Warranty Guarantee for faithful performance of the aforementioned contract and warranty quality to the OWNER/PURCHASER, _____ having Head Office at (hereinafter referred to as the 'Bank' which expressly shall, unless repugnant to the context or meaning thereof include successors, administrators, executors and assigns) do hereby guarantee to undertake to pay the sum of Rs. _____ (Rupees _____) to the OWNER/PURCHASER on demand at any time up to _____ without a reference to the SELLER. Any such demand made by the OWNER/PURCHASER on the Bank shall be conclusive and binding notwithstanding any difference between Tribunals, Arbitrator or any other authority.

The Bank undertakes not to revoke this guarantee during its currency without previous consent of the OWNER/PURCHASER and further agrees that the guarantee herein contained shall continue to be enforceable till the OWNER/PURCHASER discharges this guarantee. OWNER/PURCHASER shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee from time to time to extend the time for performance by the SELLER of the aforementioned CONTRACT. The OWNER/ PURCHASER shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the SELLER, and to exercise the same at any time in any manner, and either to enforce to forebear to enforce any covenants contained or implied, in the aforementioned CONTRACT between the OWNER/PURCHASER and the SELLER or any other course of or remedy or security available to the OWNER/PURCHASER.

The Bank shall not be released of its obligations under these presents by any exercise by the OWNER/PURCHAER of its liability with reference to the matters aforesaid or any of them or by reason or any other acts of omission or commission on the part of the OWNER/PURCHASER or any other indulgence shown by the OWNER/PURCHASER or by any other matter or things.

The Bank also agree that the OWNER/PUCHASER at its option shall be entitled to enforce this Guarantee against the Bank as a Principal Debtor, in the first instance without proceeding against

the SELLER and not withstanding any security or other guarantee that the OWNER/PURCHASER may have in relation to the SELLER's liabilities.

Notwithstanding anything contained herein above our liability under this Guarantee is restricted to Rs. _____ (Rupees _____) and it shall remain in force up to and including _____ and shall be extended from time to time for such period as may be desired by the SELLER on whose behalf this guarantee has been given.

Dated at _____ on this _____ day of _____ 2017.

Signed and delivered by

For & on Behalf of

Name of the Bank & Branch &
Its official Address

Approved Bank: Any Nationalized Bank including the public sector bank or Private Sector Banks or Commercial Banks or Co-Operative Banks and Rural Banks (operating in India having branch at Ahmedabad/ Gandhinagar) as per the G.R. no. EMD/10/2016/328/DMO dated 01.05.2017 issued by Finance Department or further instruction issued by Finance department time to time.

CONTRACT FORM

THIS AGREEMENT made on the _____ day of _____, 2016
Between _____ (Name of purchaser) of
_____ (Country of Purchaser) hereinafter "the Purchaser" of
the one part and _____ (Name of Supplier) of
_____ (City and Country of Supplier) hereinafter called "the Supplier"
of the other part :

WHEREAS the Purchaser is desirous that certain Goods and ancillary services viz.,
_____ (Brief Description of Goods and Services) and has accepted a bid by the Supplier for the
supply of those goods and services in the sum of
_____ (Contract Price in Words and
Figures) hereinafter called "the Contract Price in Words and Figures" hereinafter called "the
Contract Price."

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1 In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
- 2 The following documents shall be deemed to form and be read and construed as part of this Agreement, viz. :
 - 2.1 the Bid Form and the Price Schedule submitted by the Bidder;
 - 2.2 terms and conditions of the bid
 - 2.3 the Purchaser's Notification of Award
- 3 In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
- 4 The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
- 5 Particulars of the goods and services which shall be supplied / provided by the Supplier are as enlisted in the enclosed annexure :

TOTAL VALUE:

DELIVERY SCHEDULE:

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the

Said _____ (For the Purchaser)

in the presence of _____

Signed, Sealed and Delivered by the

said _____ (For the Supplier)

in the presence of _____

Special Conditions of Contract

1. PART-1

1. Labour

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Engineer, deliver to the Engineer in written detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

2. Compliance with Labour Regulations

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. The Contractor shall keep the Company indemnified in case any action is taken against the Company by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Company is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Company shall have the right to deduct any money due to the Contractor including his amount of performance security. The Company/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Company in this context.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Company at any point of time.

2. PART-2

1. Contractor's Responsibility

The information given hereunder and provided elsewhere is given in good faith but the contractor shall satisfy himself regarding all aspects of site conditions and no claim whatsoever will be entertained on the plea that information supplied by the Company/Engineers is insufficient.

2. Water

The contractor shall make his own arrangement for fresh water required during the contract period. However, he may take water from Solar Park water supply free of cost, if available. The arrangement for taking water is to be made by the Contractor at their own cost.

3. Power

The power required by the contractor will be supplied by GPCL however, required arrangement for taking power from any point, as suggested by GPCL, is to be made by the Contractor on their own cost.

The contractor is forewarned that there can be interruptions in power supply for reasons beyond the control of the electricity distribution company and therefore the contractor is advised to make his standby arrangement to provide and maintain all essential power supply for his work area at his expense. The contractor shall not be entitled to any compensation for any loss or damage to his machinery or any equipment or any consequential loss in progress of work and idle labour.

4. Survey

The contractor shall, at his own expense provide and maintain survey stations which he may require to carry out the works and shall remove the same on completion of the works. The contractor shall, at his own expense, carry out all the necessary surveys, measurements and setting out of the works and shall for this purpose engage qualified and competent engineering surveyors whose names and qualifications shall be submitted to the Engineer-in charge for his approval.

The contractor shall for the purpose of checking the survey and setting out, provide to the Engineer-in charge, all the assistance, which he may require. The surveyor shall be selected having appropriate experience and as far as possible, the same surveyor shall be provided throughout the contract period. Before commencing any work at any locations, the contractor shall give the Engineer-in charge not less than 24 hours notice of his intention to set out or give levels for any part of the work in order that arrangements may be made for inspection. The contractor shall provide for the sole use of the Engineer-in charge and his staff, all necessary survey instruments and other equipment and all technicians, labour and attendants which the Engineer-in charge may require for checking the setting out and marking of the works. The contractor shall maintain in good working order at all time during the period of contract the instruments provided by hiring, for proper setting out of the works. The contractor shall make available at his own expense, any poles, staging templates etc needed for the work.

5. Temporary Fencing

The contractor shall, at his own expense, erect and maintain in good condition temporary fences and gates along the boundaries of the areas assigned, if any, to him by the Company for the purpose of the execution of the works.

The contractor shall, except when authorized by the Engineer-in charge, confine his men, materials and plant within the site of which he is given possession. The contractor shall not use any part of the site for purposes not connected with the works unless prior written consent of the Engineer-in charge has been obtained. Access shall be made to such areas only by way of approved gateways.

6. Return of Labour and Plant

The contractor shall supply to the Engineer-in charge by 9 a.m. every working day a return of the men employed by him and his sub-contractors on the previous working day and all of the work on which they were engaged specifying also the number employed in each trade. He shall also supply monthly any other returns which may be required as to the number of men and constructional plant employed and the nature and type of the work done.

7. Sanitary Facilities

The contractor shall provide and maintain in a clean and sanitary condition adequate water closets and wash places which may be required on the various parts of the site for use of his employees, to the satisfaction of the Engineer-in charge. The contractor shall make all arrangements for the disposal of sewage or drainage in accordance with the directions of the Engineer-in charge. The Contractor can use the existing facility available at Gujarat Solar Park.

8. Restricted Entry to Site

The contractor shall get the prior permission of the Engineer-in charge before any person not directly connected with the works visits the site.

9. Existing Construction

Drains, pipes, cables, overhead electric wires and similar Construction encountered in the course of the works shall be guarded from injury by the contractor at his own cost, so that they may continue in full and uninterrupted use to the satisfaction of the Company and the contractor shall not store materials or otherwise occupy any part of the 'site' in a manner likely to hinder the operation of such Construction. Should any damage be done by the contractor on any mains, pipes, cables or lines (whether above or below ground), whether or not shown on the drawings, the contractor must make good or bear the cost of making good the same without delay to the satisfaction of the Engineer-in charge and of the Company.

10. Local Roads and Haul Roads

1. The approach roads and other public roads in the state may be used by the contractor to haul construction materials and equipment subject to restriction of load carrying capacity on the roads in particular over bridges and culverts. However, the contractor will have to pay customary vehicles license and permit fees for use of public roads.

2. The contractor shall plan transportation of construction materials to site in such a way that road accidents are avoided.

11. Permission for Road Cuts

Wherever the Contractor considers that it is necessary to cut through an existing road or track, he shall submit details to the Engineer-in charge for approval, a minimum of seven days before such work commences.

12. Temporary Diversion of Roads

During the execution of the works the contractor shall make at his cost all necessary provision for the temporary diversion of roads, cart-tracks, footpaths, drains, water courses, channels etc., Should he fail to do so, the same shall be done by the Engineer-in charge and the cost thereof will be recovered from the Contractor.

13. Notice to Telephone, Railways & Electricity Supply under Taking

Before commencing operations the Contractor has to obtain specific permission from local bodies/Highways Department when he wants to cut any section of the road. Where operations involve cutting of roads, shifting utilities etc. during the

process of work, the Contractor shall also give notice to the concerned authorities viz. the Panchayat/the Municipalities, the Railway department, the Electricity Board, Telegraphs department, the Traffic department attached to the police and other departments or companies as may be affected by the work. The notice should identify the specific details so that the necessary diversion of traffic may be arranged and permissions obtained. The Contractor shall co-operate with the department concerned and provide for necessary barricading of roads, protection to existing underground cables etc. met with during the excavation of trenches. The Contractor shall provide at his own expenses watching and lighting arrangements during the day and night and put the required notice board such as "Caution Road closed for Traffic" etc. He should also provide and maintain at his own cost the necessary supports for underground cables etc. to afford best protection to them in consultation with the authorities' in-charge of the properties and to their best satisfaction.

14. Barricading

The pit/trench shall be barricaded on all four sides. The contractor who has dug up the trench shall be responsible for any mishap, which may occur.

15. Watching and Lighting

The contractor shall at his expense provide at the site of work sufficient lighting and watching and fencing by night and by day and shall in every respect conform to the police regulations in these matters and he shall free and relieve the Board. Should he neglect to do so, the same shall be provided by the Engineer and the cost thereof will be recovered from the Contractor.

16. Free Flow of traffic

While executing the work, as soon as possible, the Contractor should allow as much traffic as possible on the roads/streets, by refilling the trenches cut across as per the specifications laid in relevant codes of practice.

17. Tools and Plants

All tools and plants required for the work including sheet piles and timber for shoring and strutting, pump sets etc. shall be supplied by the contractor at his own cost. The rate for the relevant items of work are inclusive of all such tools and plants and apparatus required for the execution of the work. If however, there is any difficulty in procurement of the above tools and plants by the contractor, the Employer may make available such of the tools and plants which are available in which case necessary hire charges will be recovered from the contractor, as per the GPCL's rules in force. But it should be clearly understood that any assistance to be rendered by the Employer is not obligatory and not to be taken for granted. Non-supply and/or delayed supply of such tools and plant materials cannot be cited as reasons for any slow progress by the contractor.

18. Excess Materials

The Contractor shall be responsible for the procurement of required quantity of construction materials. Any materials procured for the work even though as per Bill of Quantities, if found excess due to any reasons after completion of the works, shall be taken back by the Contractor and the Employer/Engineer shall not be responsible for such excess materials. Amount paid if any for such excess materials shall be deducted from any bills payable to the Contractor.

3. PART- 3

1. General

Before submitting the bids, the bidder should carefully go through all the sections of bid documents and in particular the bid schedule and the drawings also, inspect the place of work so as to get full and first hand knowledge of the site conditions based on which he has to quote his rates.

2. Accidents

It shall be the duty of the contractor to arrange for the execution of the works in such a manner as to avoid the possibility of the accidents to persons or damage to the properties at any stage of the progress of work. Nevertheless he shall be held wholly responsible for any injury or damage to persons and properties which may occur irrespective of any precautions he may take during the execution of the works. The contractor shall make good all claims and loss arising out of such accidents and indemnify the Company from all such claims and expenses on account thereof.

3. Flood Damages etc.

The contractor may take risk insurance at his cost against losses due to unprecedented natural calamities like floods, earthquake etc. No claim shall be entertained on this account and paid for.

4. Water and Lighting

The contractor shall pay all fees and provide water and light as required from the relevant sources and shall pay all charges, thereof (including storage tanks, meters etc.) for the use of the works and workmen, unless otherwise arranged and decided on in writing by the Engineer-in charge. The water used for the works shall be free from earthy vegetable or organic matter and from salts or other substances likely to interfere with the setting of mortar or otherwise proved harmful to the work and shall conform to relevant standards. Water used for construction activity shall be got tested for mineral contents.

5. Rates

The contractor shall particularly note that the lump sum amount quoted shall be inclusive of all incidental charges and no extra shall be due therefore on any account during the currency of the contract.

6. Royalty Charges

Royalty for the construction materials as applicable in the government notifications shall be borne by the contractor by deductions from his bills.

7. Payment to Labors

The contractor should note that in the event of specific emergency to be formally declared by the Engineer-in charge, he shall pay his labors every day and if this is not done, GPCL may make requisite payment and recover the cost from the contractor. The contractor shall not employ any laborer below age of 18 years.

8. Night Works

If night work is required to fulfill the agreed rate of progress and to complete the work within the period stipulated, prior written approval is necessary and all

arrangement shall be made by the contractor including lighting without any claim for extra rate.

9. Errors, Omissions and Discrepancies

In the case of errors, omissions, and/or disagreement between the written and the scaled dimensions on the drawings or between the drawings and the specifications, the following order of precedence shall apply;

i. In case of discrepancies in dimensions of any item of work as described between the descriptive specifications and detailed working drawings, the dimensions given in the detailed working drawings shall apply.

ii. In case of discrepancies in description of scope of work between what is indicated in the item of work given in Bill of Quantities and the corresponding detailed technical specifications, the latter shall apply.

iii. Figured dimensions shall supersede scaled dimensions. The drawings on a large scale shall take precedence over those on a smaller scale.

iv. Drawing issued as construction drawings from time to time shall supersede the corresponding drawings previously issued.

10. Equivalence of Standards and Codes

Whenever reference is made in the contract to the respective standards and codes in accordance with which plant, equipment or materials are to be furnished and work is to be performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly set forth in the contract. Where such standards and codes are national in character, or relate to a particular country or region, other authoritative standards which ensure equal or higher quality than the standards and codes specified will be accepted subject to the prior review and written approval by the Engineer-in charge. Difference between the standards specified and the proposed authoritative standards must be fully described in writing by the Contractor and submitted to the Engineer-in charge well in advance for approval. If on the prior review, the Engineer-in charge determines that such proposed deviations do not ensure equal or higher quality, the Contractor shall comply with the standards set forth in the contract document.

11. Bidder to Inform Himself

It will be the Contractor's responsibility to satisfy himself from the inspection of the site that sufficient quantities of construction materials required for the works exist in the borrow areas and quarry sites.

Failure by the contractor to have done all the things, which in accordance with this condition he is deemed to have done shall not relieve him of the responsibility for satisfactorily completing the work as required

12. All laborers and other employees of the contractor should be covered by a suitable accident insurance policy to cover liabilities under the Workmen's Compensation Act. The cost of such insurance shall be borne by the contractor.

13. Electricity Tariff

The unit rates and prices quoted by the Bidder in the Bill of Quantities shall include the cost of electric energy required for construction at the rates fixed by the electrical distribution company.

4. PART- 4

Safety Provision

1. Suitable scaffolds shall be provided for workers for all that cannot safely be done from the ground or from solid construction, except such short period work, as can be done safely from ladders. When a ladder is used, an extra labour shall be engaged for holding the ladder and if the ladder is used for carrying materials as well suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination no steeper than 1\4 to 1 (1\4 horizontal to 1 vertical). Site code for scaffolding and ladders I.S 3696-1996 Part-I and Part II and latest revisions to be followed.

2. Scaffolding or staging more than 3.25 meters above the ground or floor swung or suspended from an overhead support or erection with stationary support, shall have guard rail properly attached bolted, braced and otherwise secured at least 1 meter high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or the structure.

3. Working platform, gangways and stairways shall be so constructed that they do not sag unduly or unequally, and if height of a platform or gangways or stairway is more than 3.25 meters above ground level, it shall be closely boarded, have adequate width and be suitably fenced, as described in 2 above. Every opening in floor of a building or in a working platform shall be provided with suitable means to prevent fall of persons or materials by providing suitable fencing or railing with a minimum height of 1 meter. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 7 meters in length. Width between side rails in a rung ladder shall in no case be less than 30 cm, for ladders, this width shall be increased by at least 6mm for each additional 30cm length. Uniform steps spacing shall not exceed 30cm.

4. Adequate precautions shall be taken to prevent danger from electrical equipment. No material on any of the sites shall be so stocked or placed as to cause danger or inconvenience to any person or to the public. The Contractor shall provide all necessary fencing and lights to protect public from accidents and shall be bound to bear expenses of defense of every suit, action or proceedings at law that may be brought by any person for injury sustaining, owing to neglect of the above precautions and to any such suit, action or proceedings to any such person or which may with the consent of the contractor be paid to compromise any claim by any such person.

5. All necessary personal safety equipment as considered adequate by the Engineer-in charge shall be available for use of persons employed on the site and maintained in a condition suitable for immediate use and the contractor shall take adequate steps to ensure proper use of equipment by those concerned

a) Workers employed on mixing asphaltic materials, cement and lime mortars/concrete shall be provided with protective footwear, hand gloves and goggles.

b) Those engaged in handling any materials, which is injurious to eyes, shall be provided with protective goggles.

i) Stonebreakers shall be provided with protective goggles and protective clothing.

c) The contractor shall not employ labour below the age of 18 and women on the work of painting with products containing lead in any form. Whenever men above the age of 18 are employed on the work of lead painting the following precautions shall be taken:

i) No paint containing lead or lead products shall be used except in the form of paste or ready-made paint.

ii) Suitable facemasks shall be supplied for use by workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scraped.

iii) Overalls shall be supplied by the contractor to workmen and adequate facilities shall be provided to enable working painters to wash during and on cessation of works.

6. When the work is done near any place where there is risk of drowning, all necessary equipment shall be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provisions made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

7. Use of hoisting machines and tackles including their attachments, anchorage and supports shall conform to the following:

a) These shall be of good mechanical construction, sound material and adequate strength and free from patent defects and shall be kept in good repair and in good working order.

b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.

c) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years shall be in-charge of a hoisting machine, including any scaffold winch or give signals to Operator.

d) In case of every hoisting machine and of every chain ring hook, shackle, swivel and pulley block used in hoisting machine or lowering or as means of suspension, safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with safe working load. In case of hoisting machine having a variable safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or of any gear referred to above in this paragraph shall be loaded beyond safe working load except for the purpose of testing.

- e) In case of departmental machine, safe working load shall be notified by the Engineer-in charge. As regards contractor's machine, the contractor shall notify safe working load of each machine to the Engineer-in charge. Whenever he brings them to the site of work, he should get it verified by the Engineer-in charge.

8. Motors, gearing, transmission, electrical wiring and other dangerous parts or hoisting appliance shall be provided with such means as will reduce to the minimum risk and accidental descend of load; adequate precautions shall be taken to reduce to the minimum risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel such as gloves, sleeves and boots, as may be necessary shall be provided. Workers shall not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

9. All scaffolds ladders and other safety devices mentioned or described herein shall be maintained in a safe condition and no scaffold ladder or equipment shall be altered or removed, while it is in use. Adequate washing facilities shall be provided at or near place of work.

10. The safety provision shall be brought to the notice of all concerned by displaying on a notice board at a prominent place at the work spot, persons responsible for ensuring compliance with the safety provision shall be named therein by the contractor.

11. To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the contractor shall be open to inspection by the Engineer-in charge or his representative and the inspecting Officer.

12. The contractor shall obtain previous permission of the competent authority such as Chief of Fire Construction for the site, manner and method of storing explosives near the site of work. All handling of explosives including storage, transport shall be carried out under the rules approved by the "Explosive Department of the Government".

13. The contractor shall at his own cost provide and maintain at the sites of works, standard first aid box as directed and approved by the Engineer, for the use of his own as well as the Company's staff on site.

14. Notwithstanding the above provision 1 to 13 contractors is not exempted from the operation of any other Act or rules in force relating to safety provisions.

15. Environmental Protection Work

15.1 The Contractor shall have to take following measures during construction and commissioning of works for protection of environment as under to avoid environmental impacts on air, water and land.

15.2 Site Clearance

The site clearance shall be done with minimum damage to existing structures, flora and fauna, electricity and telephone lines and other infrastructure service.

15.3 Earth Work and Excavation

The Contractor shall inform the local authorities / government if any fossils, coins, artifacts of value or antiquity, structures and other remains of geological or archaeological interests and excavation shall be stopped until identification of cultural relics by the authorized institution is completed.

The Contractor shall dispose off surplus / waste material at identified sites approved by the Engineer-in charge. The Contractor shall ensure that there is minimum hindrance to normal activities and business. The Contractor shall avoid damage to permanent structures and shall avoid loss of standing crops along the road.

15.4 Re plantation

The Contractor shall carry out Re plantation on areas / on the periphery of construction sites to minimize visual impact and soil erosion. The Contractor shall pay special attention to the type of trees to be replanted to prevent fouling of water through falling leaves and bird droppings. A list showing the type of trees to be replanted will be got approved before replanting any trees.

15.5 Soil Erosion and Water Quality

The Contractor shall ensure that earth and stone do not silt up existing irrigation /drainage systems.

The Contractor shall take suitable measures to prevent direct discharge of polluted waters form construction activity into lakes/rivers/irrigation channels.

The Contractor shall minimize exposure of soil types susceptible to wind and water erosion.

The Contractor shall control run-off and erosion through proper drainage channels and structures.

15.6 Soil Compaction

The Contractor shall restrict traffic movements and use low ground pressure machines. The Contractor shall preserve topsoil to be replaced after completion of construction activity. The Contractor shall avoid wet soils.

15.7 Social Disruption

The Contractor shall minimize interruptions to utility Construction through proper planning and scheduling of activities. The Contractor shall provide temporary roads and diversions as may be necessary for smooth flow of traffic.

The Contractor shall preferably use local labour/ skilled persons during construction.

15.8 Dust/Air Pollution

The Contractor shall provide effective dust control through sprinkling / washing of construction sites and access roads.

The Contractor shall cover / water stockpiles and storage areas to prevent dust pollution.

The Contractor shall cover trucks suitably while transporting construction materials to minimize spills.

The Contractor shall have a preventive maintenance programme for construction equipment and vehicles to meet emission standards.

15.9 Noise Pollution

The Contractor shall normally undertake construction work during daytime only (between 7.30 to 18.00 hrs.) and when authorized to work beyond these hours adopt suitable noise control methods during such works. The Contractor shall maintain machines and trucks to keep them with low noise.

15.10 Construction Camps

The Contractor shall take adequate measures such as provision of septic tank / pit latrines at construction site / camps.

The Contractor shall provide crèches to working women labour.

The Contractor shall provide drinking water conforming to IS: 10500.

The Contractor shall provide garbage cans at suitable fixed place and have the garbage disposed off regularly

15.11 Aesthetic Improvement

The Contractor shall through proper housekeeping enhance aesthetic appearance of construction sites.

The Contractor shall dispose-off construction wastes at approved disposal sites.

The Contractor shall remove after completion of construction, all temporary structures and restore the project and surrounding areas nearest possible to the pre-construction condition.

15.12 Conservation of Ecological Resources

The Contractor shall not use farmland and forest belts as materials borrow sites.

The Contractor shall not select arable land as material borrows site. In case excavation in arable land is unavoidable, topsoil layer (30 Cms depth) shall be saved and returned after construction work is completed so as to minimize impacts on ecosystem, agriculture and animal husbandry.

The Contractor shall educate construction workers to protect natural resources, wild plants and animals.

15.13 Risk of Accidents

The Contractor shall provide efficient lighting equipment and safety signs on temporary roads during construction and shall adopt and implement adequate traffic regulation.

The Contractor shall take effective safety and warning measures to reduce accidents. The Contractor shall provide suitable temporary crossings to facilitate normal life and business.

15.14 Responsibility for Accidents, Damages Etc.

The care of the whole of the permanent work until their completion as defined and for the period prescribed and of the whole of the temporary work until their removal shall remain with the Contractor who shall be responsible for all accidents or damages from whatever cause arising and chargeable for anything that may be stolen, removed, destroyed or damaged to whomsoever belonging and also for making good all defects and damages to the said Works or to any property adjoining or any cause whatever, whether such damage or defects were occasioned by the negligence of the Contractor or not or may be or might have been discovered during the progress of the works or in consequence thereof, or shall appear to be known after the completion whereof or whether payment may wholly or partially have been made or the Works approved as supposed to have been properly done and no certificate or approval of any works by any officers or members of the Board shall effect.

15.15 Land

It is the policy of the GPCL to acquire the lands permanently required for the works following the procedures set forth in the Land Acquisition Act. However, if at the time of commencement of the work, any or all of the lands (either in parts or in whole) required for the work are not yet acquired by the GPCL it shall be the responsibility of the contractor to obtain possession of such land/lands from the land owner by negotiations with him by the contractor during the construction period or during the maintenance period of 12 months referred to in clause 19 of the conditions of Contract, the contractor has to make his own arrangements to get the dispute settled & to bear the extra cost, if any, on that account. No extension of time shall be granted on account of time taken by the contractor for such settlement.

ADDITIONAL CONDITIONS OF CONTRACT

1. Quarries and Borrow Areas

All materials for construction which are not available from excavation shall be obtained from the quarries and borrow areas shall be got approved from the Engineer-in charge well in advance. In no case, the quarry / borrow areas shall be within the acquired area of GPCL. GPCL will not make available any quarry or borrow area. The contractor shall himself explore the quarries and borrow areas required for the work and quote his rates for finished items of work in Schedule B accordingly with all leads and lifts. The leads considered in the sanctioned estimate are for the estimate purposes and shall not be taken as the actual leads for materials during execution. No claims whatsoever shall be made, nor any extra leads charges will be entertained over and above the lead charges considered in the estimate. No claim of any compensation shall be due to the contractor, on any account whatsoever, such as the quarries and borrow areas considered in the estimate being found unsuitable or inadequate in yield, the haulages routes reckoned being found unsuitable, the leads reckoned being found incorrect, the land owners obstructing the procurement and conveyance etc. GPCL does not undertake to acquire lands for the quarries and borrow areas. It is the responsibility of the contractor to negotiate with land owners and acquire the lands to him, either permanently or temporarily, and procure the required materials. If the quarries/borrow areas do not give sufficient quantity of material, contractor shall make his own arrangements for additional quarries / borrow areas, with the approval of the Engineer-in charge and bear cost of investigations and negotiations, all leads and lifts, cost of land etc. at his own expense without claim for any payment over and above his tendered rates.

2. Rates are all Inclusive

The rates quoted in bill of quantities shall be for finished items of work, completed in all respects, inclusive of all materials all tools and plant and all labour required for the work, all leads and lift and all incidental charges such as dewatering and de silting, diversion of rain and nala flows, diversion of traffic, initial and final clearance of site, providing labour amenities etc. and all taxes, levies & royalty charges etc. complete. The rates shall hold good for all conditions of site, moisture, weather etc.

3. Royalty

Royalty for the construction materials as applicable in the government notifications shall be borne by the contractor by way of deductions from his bills.

4. Income Tax

Deduction at source towards Income Tax will be made from the contractor's bills at the rates prevailing at the time of payment as fixed by the Income Tax authorities and the tax and deductions certificate will be issued at the end of the financial year.

5. GST

Deduction at source towards GST will be made as per the norms and the statutory order of government.

6. Dewatering, De silting and Diversion of Flows

Any water encountered during the execution work shall be suitably removed by bailing out or pumping and any accumulated silt due to any reason whatsoever, during the execution of work shall also be removed and disposed off. All surface flows shall be diverted outside the work area

by suitably channelizing the flows, by providing cross bunds and conducting the flows in pipes, conduits, etc., or by cross bunds and pumping etc. depending upon the site conditions and exigencies of work. The cost of all such operations shall be considered as included in the quoted rates of the concerned finished items of work and shall not be separately paid.

7. Procurement of Cement, Steel and Blasting Materials

The responsibility of procuring safe storage and safe transportation and usage of all materials including cement, steel and explosives (and license thereof) shall rest with contractor only. The material shall be procured from reputed firm and shall be got tested from the Govt. approved laboratories at the cost of contractor.

8. Clearing the Site

The area to be occupied by the work and the quarries and borrow areas shall be cleared of all vegetations, including trees, root, ant hills and other extraneous matters. The site shall be cleared to the full width of the works as directed by the Engineer-in-charge. No separate payment is admissible for clearing the site. Site clearance is done without damage to existing structures, flora and fauna, electricity, telephone lines and other infrastructure areas.

9. All Properties, Precious Stones, Metal and Relics to be Handed Over to Department

All gold, silver, oil or other materials of any description what-so-ever and other similar things that may be discovered on the site shall remain the property of the Government and the contractor shall only duly intimate the Engineer-in-charge or any person duly authorized by him to receive such property from time to time.

10. Preservation of Trees

The contractor shall preserve all existing trees in and adjacent to the sites which do not interfere with the constructions as determined by the Engineer-in-charge.

11. Drawing and Working Details

The work shall be carried out strictly in accordance the approved plans and estimates and specifications and as per the instructions of the Engineer-in-charge, no deviations or changes are permitted without the written order of the Engineer-in charge. The designs and drawings should be enclosed with the tender documents by the Bidder and got approved by GPCL. The working drawings and the working details of the several components of works will be prepared by the tenderer and the work shall be carried out in accordance with such working drawings and working details.

Contractor will update the Tender Drawings and generate Approve for Construction drawings

(AFC) for GPCL / GPCL's Consultant approval.

12. Omissions and Discrepancies in Drawings and Instructions

a) In all cases of missions, doubts or discrepancies in the dimensions or discrepancies in the drawings and item of work, a reference shall be made to the Engineer, whose elucidation and elaboration shall be considered as authorized.

The contractor shall be held responsible for any error that may occur in the work through lack of such reference and precautions.

b) The contractor shall be responsible for accuracy for all shapes, dimensions and alignments etc. of all components of the work.

13. Taking Initial Levels, Marking out the Layout and Fixing the Reference Lines.

Before starting the work, the contractor or his authorized agent shall be present while taking levels of the ground along and across the portion of the road alignment, which the contractor has agreed to execute. He will further be required to sign the field book and also L-sections and cross sections of the works based on the ground levels taken as a token of acceptance of the ground levels before the commencement of work or fresh items of excavation below a preceding item. In case he commences the work without verifying and accepting the cross section and L-sections of ground, it will be assumed that he has accepted the L-sections and cross sections taken by GPCL staff and no complaint or claims what so ever in this behalf will be entertained. It shall be the responsibility of the contractor to mark the line out as per directions of the Engineer-in-charge. The contractor or his duly authorized agent shall be present at the time of setting out giving profiles etc., and shall supply all the materials

and sufficient number of labours required for taking measurements of works, giving line out etc., at his cost.

The stone masonry, platforms and reference pillars etc., of suitable size as directed by the Engineer-in-charge with level top shall be built and maintained by the contractor at his cost till the completion of work along the reference lines of facilitate the mark out and layout of various appurtenant works.

14. Commencement of Work

The contractor shall not enter upon or commence any portion of the work except with the written authority of the Engineer-in charge, failing which the contractor shall have no claim to ask for measurement or payment for work and shall on the other had, be responsible for any claim of damage that may arise due to such unauthorized commencement or entry.

15. Programme of Work

Within 15 days from the date of notice to commence the work, the contractor shall furnish a detailed programme of the schedule that he intends to adopt, which shall show both physical and financial programme weekly/monthly as desired by the Engineer-in-charge and abide by it. The general format of furnishing the programme of work is enclosed in General Condition of Contract.

16. Plant Layout, Contractors Office, Machine Yard, Labour Camp Etc.

Within a fortnight of the date of award of the contract, the contractor shall submit to the Engineer- in-Charge for the approval of GPCL, the layout of construction plant and equipment for execution of work and also the location and layout of contractors office, machine yard, workshop, stores, storage yard, labour camps etc. including the layout of necessary Construction such as water supply, sanitation etc.

17. Access roads, quarry roads etc.

All haulage roads, access roads to work spot, quarry roads etc. and all diversion roads found necessary during construction shall be formed and maintained by the contractor at his cost to such standards as may be directed by the Engineer-in-charge as per the requirements of the work. The contractor should make him thoroughly conversant with the conditions of existing public roads of the area and the existing arrangements for their maintenance. If any damage to the existing public roads is caused due to any natural or other causes or due to bad maintenance, GPCL will not be held responsible for the inconveniences caused to the contractor including any extra cost or temporary stoppage of work. The existing roads, constructed and maintained by the GPCL if any shall be used by all concerned contractors. No claim of compensation from any contractor shall be entertained on the excuse of non-maintenance of such roads.

18. Power Supply for the Works

The Contractor has to make at his own cost, all necessary arrangements for the supply of power required for the work and his camps from GSECL. GPCL will not undertake any responsibility with regard to power supply and no claims due failure, or delay in supply of power or variations in voltage in supply will be entertained by GPCL.

19. Water for Construction

Supply of water for construction, manufacture of pipes, testing of pipes and for drinking and for his camps shall be arranged for by the contractor at his own expense.

20. Amenities to Labours

These are covered in the General Conditions of Contract. The following are further elucidation. The contractor shall provide the following labour amenities for the imported labours, if any:

- I. A shed of 6.1 M x 3.05 M per family on a platform of 0.15 m height.
- II. Distance between sheds shall be 4.6 m minimum and not more than two rows sheds shall be built back to back.
- III. Peripheral roads, 6.1 m wide shall be built for every 300 families.
- IV. Necessary surface drainage and sanitary arrangements shall be provided.
- V. Water supply with one stand post for every 20 sheds.
- VI. Electric Street lights at one point for every 61 m.
- VII. The office space for the contractor will be provided by GPCL. However, the expense towards maintenance of the office shall be borne by the contractor.

The contractor shall provide layout for the labour camp and arrange water supply and electricity as above. In case of default the GPCL may provide the same and recover the cost (capital and recurring) from the contractor.

The contractor shall also responsible for complying with all the requirements of the Labour Authorities and Health particularly in regard to sanitation, water supply and anti malaria measures in the labour camps as may be directed from time to time.

All the labour employed by him should be got inoculated against Cholera once in 6 months and against small pox once in three years. Any new labour employed by him should be got inoculated

against cholera and vaccinated against small pox within a fortnight of being employed by contacting the local health authority at his own cost.

On the work spot, at safe distance, adequate number of rest sheds, crouches and drinking water arrangements shall be made by the contractor at his cost to the satisfaction of the Engineer-in-charge.

Lands for the Use of the Contractor Camp

The contractor shall have to make his own arrangements with regard to land required for construction of quarters at the work spot. However, GPCL at its discretion may make land available. In such a case necessary charges as fixed by the Engineer-in-charge will be levied.

21. Undesirable Person to be removed from Site

The contractor shall not employ on site any person who is undesirable. If in the opinion of the Engineer-in-charge the person or person at site of work employed on behalf of the contractor is/are considered undesirable, the Engineer-in-charge shall notify the contractor to this effect and the contractor will be bound by the decision of the Engineer-in-charge to remove such person or persons from the site of work and from the labour camp. The contractor shall be liable to compensate the GPCL for any loss or damage to GPCL property caused due to the employment of such person.

22. Work Order Book

A work order book shall be maintained by the contractor at the site and all instructions shall be got entered in the book in ink. The contractor shall be responsible for obtaining all the orders entered in the work order book and he or his authorized agent shall sign, acknowledging the orders issued and shall carry out orders. Copies of the orders entered in work order book shall be submitted by the contractor to the concerned officer and to the Engineer-in-Charge within two days, for their record.

23. Labour Statistics

The contractor shall submit daily reports on the following:

- i. Total No. of labour imported into working area
- ii. Total No. of labour living in the working area

24. Execution of Work during Night Time

The work shall normally be carried out between 8 hours and 17 hours with a break of one hour and when permitted during night period, the second shift shall be between 17 hours and 0 hours with a break of half an hour during night. When ordered to work at night, adequate provision for lighting the working area should be made by the contractor at his cost and got approved by Engineer-in-charge. Whenever the work is done at night by the contractor with his own interest he shall take the permission of Engineer-in-charge with sufficient provision for lighting arrangement at his own cost.

25. Medical Aid

These are covered in the General conditions of contract. The following are further stipulations.

- i. The contractor shall arrange all the necessary medical facilities for his staff and labour at his own cost and to the satisfaction of Engineer-in-charge. The contractor shall arrange in his office, work shop, work site and camps facilities of clear portable treated water and arrange for proper drainage and proper disposal of sewage. He shall abide by the rules framed on this behalf by
- ii. the Engineer-in-charge or Health Officer of the project, or the concerned taluka.
- iii. The contractor shall also provide for medical supervision of his workers against epidemics. The contractor shall comply with all the directions given by Health Officer in this regard.

26. Safety Code

- A. These safety provisions should be brought to the notice of all concerned by display on the notice board by the contractor at a prominent place at work spot. The persons responsible for compliance of the safety code shall be named therein by the contractor.
- B. To ensure effective enforcement of the rules relating to safety precautions, the arrangement made by the contractor shall be open to inspection by the Labour Officer, Engineer-in-charge or their representative.
- C. All necessary personal safety equipments as considered adequate by the Engineer-in-charge should be kept available for the use of persons employed at the site and maintained in a condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment by those concerned.
- a) Workers employed on mixing concrete, cement grout, cement mortar shall be provided with protective footwear like gumboots and protective goggles and protective gloves.
- b) Those engaged in mixing or stacking cement or any materials injurious to the eye, nose and mouth shall be provided with a face mask and protective cover free of cost by the contractor.
- c) Those engaged in welding work shall be provided with welder's protective eye shield and gloves.
- d) Stone breakers shall be provided with protective goggle and protective clothing and seated at sufficiently safe intervals.
- e) Those engaged in binding and fabricating steel shall be provided with protective gloves.
- f) Those engaged in deep cuts, tunnels, large rock excavation shall be provided with helmets.
- g) When the work is near any place where there is risk of drowning all necessary steps for prompt rescue of any person in danger and adequate provisions should be made for prompt first aid treatment of all injuries likely to be sustained during the course of work.
- h) Adequate and suitable caution and danger signal boards shall be prominently exhibited at road/river crossing/high tension over head line/where heavy electrical machines are working/where overhead cranes or hoist; derricks, winches are working/where blasting zone is demarcated; The content of the board shall be in English and the local language for easy identification.
- i) All scaffolding, ladder, stairways, gangways, staging, centering, form work and temporary support and safety devices etc. shall be sound in strength and construction and maintained as such throughout its use.
- j) No materials on any site of work shall be so stacked as to cause danger or inconvenience to any persons or public.
- k) The contractor shall provide all necessary fencing and lighting to protect the public/working men from accident and shall be bound to bear the expense of

defense of every suit action or other proceedings of law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and costs, which may be awarded in any such suit action or proceedings to any such persons or which may with consent of the contractor be paid to compensate any claims by any such persons.

l) No electric cables or apparatus which are liable to be a source of danger to persons employed shall remain electrically charged unless a caution Board is put in to that effect and close approach to the same is prohibited.

m) All practical steps shall be taken to prevent danger to persons employed from risk or fire or explosives or flooding. No floor, roof or other portion of any building used for residence shall be so over-loaded with debris or materials so as to render it unsafe.

n) The final disposal of water used for work or removed from work spot as well as the supply used for domestic consumption shall be as directed by the Engineer-in-charge. The contractor shall make his own arrangement for purifications of domestic water supply used by his staff and labour colony and also used on the site of work to the satisfaction of the Engineer-in-charge.

o) The source of drinking water supply/distribution system in workers colony shall be protected from chances of contamination by poisonous materials/epidemic causing infections bacteria etc., by maintaining the source and system under adequate hygienic conditions.

p) Use of hoisting machines and tackles including their attachments, anchorage and supports shall conform to the following:

i) These shall be good mechanical construction, sound material and adequate strength and free from patent defects and shall be kept in good repair and in good working order.

ii) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defect.

Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years shall be in-charge of a hoisting machine, including any scaffold winch or give signals to operator.

In case of every hoisting machine and of every chain ring hook, shackle, swivel, and pulley block used in hoisting machine or lowering or as means of suspension, safe working load shall be ascertained by adequate means. Every hoisting machine or lowering or as means of suspension, safe working load shall be ascertained by adequate means. Every hoisting machine or lowering or as means of suspension, safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with safe working load. In case of hoisting machine having a variable safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or of any gear referred to above in this paragraph shall be loaded beyond safe working load except for the purpose of testing.

In case of departmental machine, safe working load shall be notified by the Engineer-in-charge. As regards contractor's machine, the contractor shall notify safe working load of each machine to the Engineer-in-charge whenever he brings to the site of work and get it verified by the Engineer-in-charge.

q) Motors, gearing, transmission, electrical wiring and other dangerous parts or hoisting appliance shall be provided with such means as will reduce to the minimum risk and accidental descend of load; adequate precautions shall be taken to reduce to the minimum risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel such as gloves, sleeves and boots as may be necessary shall be provided. Workers shall not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

r) All scaffolds ladders and other safety devices mentioned or described herein shall be maintained in a safe condition and no scaffold ladder or equipment shall be altered or removed, while it is in use. Adequate washing facilities shall be provided at or near place of work.

s) The contractor shall obtain previous permission of the competent authority such as Chief of fire Construction for the site, manner and method of storing explosives near the site of work. All handling of explosives including storage, transport shall be carried out under the rules approved by the "Explosive Department of the Government".

t) The contractor shall at his own cost provide and maintain at sites of work, Standard First Aid box as directed and approved by the Engineer-in-Charge for use of his own as well as employees staff on site.

u) Notwithstanding the above clause, there is nothing in this to exempt the contractor to exclude the operation of any other act or rules in force of Central and State Government relating to safety provision.

27. Engineer's Supervision

All the works shall be carried out under the direction and to the satisfaction of the Engineer-in-charge. Reference lines and reference bench mark will be set-up on the site by the Engineer-in-charge based on which the contractor shall at his cost and responsibility, locate and establish lines and grids for all structures of the works according to the drawings and specifications. The Engineer-in-charge may, for satisfying himself carryout checks. The contractor shall provide, at his own cost, all labour, materials and instrument that may be required for carrying out the check. Such a check shall not however absolve the contractor of his responsibility from carrying out the works strictly according to drawings and specifications and as per instructions issued to him by the Engineer-in-charge during the execution of work.

28. Engineer's Decision

In respect of all matters which are left to the decision of the Engineer-in-charge shall, if required so by the contractor give the decision in writing.

29. Derived Rates

When an item of work appearing in Section 7 is a combination of two or more items appearing in Divisional schedule of rates, the rate for that item should be derived by combining the current rates of the concerned items in the same proportion as it is adopted for arriving at the estimated rates of the comparative statement prepared at the time of the tender.

30. Maintenance of Work During Execution

It is the responsibility of the contractor to maintain the work satisfactorily until it is handed over to the GPCL in a complete manner as per the terms of agreements. Any damages caused during construction to any part of the work due to any reason arising out of his own action or negligence shall be made good at the contractor's expenses.

31. Co-Operation with Other Contractors

The contractor will have to co-operate with the agency/agencies working in the same or adjoining area. Any in-convenience or interruptions in any portion of the working area does not make either of the contractors eligible for any claims. In case of any disputes with the adjacent contractors, the decision of the Engineer-in-charge shall be final. No extra payment is admissible on this account.

32. Test Results from Q.C. Authorities

The contractor should carry out the work only after obtaining the test results from the quality control authorities duly obtaining the permission from the Engineer-in-charge. The contractor shall follow required procedures as described in Detailed Technical Specifications for Quality Control under section-6.

33. After Award of Contract (Prior To Start of Job)

The Contractor is expected to follow standard Quality Procedures prior to execute the project. A detailed Quality plan shall be submitted by the contractor prior to the start of work; however some guidelines are given below:

33.1 Quality Plans: The Contractor shall list all the major activities in their area/scope and prepare the Quality Plan accordingly.

33.2 Inspection and Test Plan (ITP) for detailed activity of the job. Contractor shall develop ITPs for job activities in his scope in line with sample ITP format.

33.2.1 The Contractor shall obtain approval of his detailed Quality Assurance Programme and Quality Plans for all the works under his scope. This Quality Programme is a tailored system, which Contractor shall be using for the job giving details of job procedures and construction technologies for all major activities.

33.2.2 During Job Execution: Implement agreed Quality Assurance programme and submit the reports as per the programme.

34. Guidelines to Tenderer for Preparation of Quality Plan

34.1 Quality Plan

One of the special features of this specification is 'Quality Plan'. The format is designed to include important information such as:

List of all major activities i.e. Work Break-Down Structure (WBS)

Job Procedure: Number for each activity covering construction technology to be adopted. Responsibility

Controls for Quality at Contractors end.

Inspection and Test requirement for GPCL's witness. Record Generation

While finalizing the "**Quality Plan**" for the particular job following is the sequence of actions.

34.1.1 Break down of work into activities:

Break down the entire project work under the scope into smallest identifiable activity, in sequence. The column "Activity Description" is provided for this purpose.

34.1.2 Decide work method:

Well laid down, step-by-step procedures totally covering the activity are to be specified under the column "Procedure No." Applicable Standards are to be specified under this column. Code of conformance as per tender specification can be specified under the column provided.

34.1.3 Assign Responsibilities:

Under the "Performance" column, the job performer level is to be identified as per experience level and designation.

34.1.4 Decide Internal Controls:

The type of internal controls that shall exercise to produce Quality shall be identified as Checker, Reviewer / Approval.

34.1.5 Not applicable.

35. Reporting

The contractor is required to submit weekly and monthly progress reports in the approved formats in consultation with GPCL.