



ऑयल इंडिया लिमिटेड
(भारत सरकार का उद्यम)
Oil India Limited
(A Government of India Enterprise)

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INVITATION TO e-BID UNDER SINGLE STAGE COMPOSITE BID SYSTEM

Tender No. & Date : SGI2564P17 dated 24.09.2016

Tender Fee : INR 1,000.00

Bid Security : INR 24,000.00

Bidding Type : SINGLE STAGE COMPOSITE BID SYSTEM

Bid Closing on : 03.11.2016 at 11.00 Hrs.

Bid Opening on : 03.11.2016 at 14.00 Hrs.

Bid Validity : Bid should be valid for 90 days from bid closing date.

Bid Bond Validity : Bid Bond should be valid upto 15.05.2017.
(Bid bond format has been changed. Please submit bid bond as per revised format)

Performance Guarantee : Applicable @ 10% of order value.

Integrity Pact : Not Applicable

OIL INDIA LIMITED invites electronic bids from Indigenous bidders under LOCAL COMPETITIVE BIDDING (LCB) on SINGLE STAGE COMPOSITE BID SYSTEM through its e-procurement site for the items detailed below –

Item No.	Item Description	Quantity	UoM
10	Detailed Project Report (DPR), Design, Manufacture, Supply, Packing & Forwarding of 5 KWp Off-Grid Solar PV Power Plant for Repeater Station No. 6 & 7 at B G Hill, Narangi, Guwahati, Assam.	1	NO.
20	Installation, Erection, Testing and Commissioning etc. of 5 KWp Off-Grid Solar PV Power Plant for Repeater Station No. 6 & 7 at B G Hill, Narangi, Guwahati, Assam.	1	LS
30	Comprehensive Annual Maintenance Contract for a Period of 5(Five) years 5 KWp Off-Grid Solar PV Power Plant for Repeater Station No. 6 & 7 at B G Hill, Narangi, Guwahati, Assam.	1	LS

The general details of tender can be viewed by opening the eRFx [Tender] under RFx and Auctions in the e-portal through Guest Login. The details of tendered items can be found in the Item Data and details uploaded under Technical RFx. The bidding document is available in the Technical RFx -> External Area -> Tender Documents.

STANDARD NOTES:

1.0 The tender will be governed by “General Terms & Conditions” for e-Procurement as per Booklet No. MM/LOCAL/E-01/2005 for E-procurement (LCB Tenders).

2.0 This Bidding document consists of :

- (i) Annexure AA : Scope of Works and Special Terms & Conditions.
- (ii) Annexure BB : Technical Specifications
- (iii) Annexure CC : Bid Rejection Criteria / Bid Evaluation Criteria
- (iv) Annexure DD : Commercial Check List
- (v) Annexure EE : Layout diagram of BG hill.
- (vi) Annexure FF : Bank Details
- (vii) Annexure GG : Certificate of Annual Turnover & Networth

LCB Doc. Booklet (No. MM/LOCAL/E-01/2005) and **General Guideline for e-procurement** have been uploaded separately in the Technical RFx -> External Area -> Tender Documents.

3.0 Application showing full address/email address with Tender Fee (Non-refundable) of Rs. 1,000.00 in favour of M/s Oil India Limited and payable at Guwahati is to be sent to Chief Material Manager (PL), Oil India Limited (Pipeline Headquarters), P.O. Udayan Vihar, Guwahati -781171. **Application shall be accepted only upto one week prior to the bid closing date (or as amended in e-portal)**. The envelope containing the application for participation should clearly indicate “REQUEST FOR ISSUE OF USER ID AND PASSWORD FOR E TENDER NO ...” for easy identification and timely issue of user ID and password (*For bidders having existing user id and password issued by OIL, same may be used for submission of bid after payment of tender fee*). On receipt of requisite tender fee, USER_ID and initial PASSWORD will be communicated to the bidder (through e-mail) and will be allowed to participate in the tender through OIL’s e-Procurement portal. **No physical tender documents will be provided.** Details of the tender can be viewed using “Guest Login” provided in the e-Procurement portal. The link to e-Procurement portal has been also provided through OIL’s web site www.oil-india.com.

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

4.0 **Tender Fee and Bid Security can also be paid through payment gateway in the e-tender portal.** Please refer to Vendor User Manual updated in the e-tender portal as well for further details.

5.0 Please note that all tender forms and supporting documents are to be submitted through OIL’s e-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with Tender no. and Due date to **The Chief Materials Manager (PL), Oil India Limited (Pipeline Headquarter), P.O. Udayan Vihar, Guwahati -781171** before 14.00 Hrs. IST on the Bid Closing Date mentioned in the Tender.

- a) Original Bid Security.
- b) Any other document required to be submitted in original as per tender requirement.

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

6.0 **Bidders are requested to quote non Deemed Export prices.**

7.0 Please do refer the User Manual provided on the e-portal webpage on the procedure ‘How to create Response’ for submitting offer.

8.0 Bidders shall prepare the “Techno-commercial Unpriced Bid” and “Priced Bid” separately and shall upload through electronic form in the OIL’s e-Tender portal within the Bid Closing Date and Time stipulated in the e-

tender. The “Techno-commercial Un-priced Bid” shall contain all technical and commercial details except the prices which shall be kept blank. Details of prices as per Bid format / Commercial bid to be uploaded as attachment in the Attachment Tab “Notes and Attachments”. **A screen shot in this regard is given below.**

Any offer not complying with above submission procedure will be rejected as per Bid Rejection Criteria mentioned in the tender.

Display RFX Response:

Go to this Tab “Technical RFX Response” for Uploading “Techno-commercial Bid”.

Go to this Tab “Notes and Attachments” for Uploading “Priced Bid” files.

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

Edit RFX Response:

Bid on “EDIT” Mode

Area for uploading Techno-Commercial Bid*

Area for uploading Priced Bid**

- 9.0 Bidders are requested to examine all instructions, forms, terms and specifications in the tender. Failure to furnish all information required as per the tender or submission of offers not substantially responsive to the bid in every respect will be at the bidders risk and may result in rejection of its offer without seeking any clarifications.
- 10.0 All the Bids must be Digitally Signed using “Class 3” digital certificate (e-commerce application) with organisation name as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India.

- 11.0 Bidders must ensure that their bid is uploaded in the system before the tender closing date and time. Also, they must ensure that all documents which are to be submitted in a sealed envelope are also submitted at the address mentioned in note 5.0 above before **14:00 Hrs (IST)** on the bid closing date failing which the offer shall be rejected.
- 12.0 Other terms and conditions of the tender shall be as per General Terms & Conditions” in Booklet No. MM/LOCAL/E-01/2005 for E-procurement (LCB Tenders). However, if any of the clause of the Bid Rejection Criteria / Bid Evaluation Criteria (BEC / BRC) contradicts the clauses in the General Terms & Conditions of the tender and/or elsewhere, those mentioned in the BEC/BRC shall prevail.
- 13.0 To ascertain the substantial responsiveness of the bid OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer may be summarily rejected.
- 14.0 **No press advertisement will be published regarding amendment to Bidding Document or extension of Bid Closing Date. The same will be uploaded in OIL’s website and informed to all prospective bidders who have received the bidding documents. Bidders to keep themselves updated.**

Sd-

(M.B. SINGHA)
DEPUTY MANAGER MATERIALS (PL)
FOR CHIEF MANAGER MATERIALS (PL)
FOR: GROUP GENERAL MANAGER (PLS)

ANNEXURE - AA**I. DETAILED PROJECT REPORT (DPR), DESIGN, MANUFACTURE, SUPPLY, OF 5 KWP OFF-GRID SOLAR PV POWER PLANT FOR REPEATER STATION NO. 6 & 7 AT B G HILL, NARANGI, GUWAHATI, ASSAM.****1.0 LOCATION AND OTHER RELATED DATA:**

The site is located atop of BORAGOHAIN (BG) Hill near OIL Township in Narengi, Guwahati, Assam. The proposed project site is elevated area and reachable by four wheel drive vehicle only through OIL's private road. **The bidders are advised to visit the site before bidding.** The visit can be arranged with due correspondence with OIL, Guwahati and for details of existing layouts of OIL's installation at proposed site. Drawing No. OI/PL-0742 may be obtained & referred to.

Latitude	: 26 degree 10'45"N
Longitude	: 91 degree 45'0"E
Humidity	: Max. : 100% and Min : 40%, Annual Average: 76%
Ambient Temperature	: 4 degree (Min.), 40 degree (Max.) Reference Temp: 24.2 degree Celsius.
Elevation	: 420 MASL
Maximum Total Rainfall	: 353.6 mm (July)
Earthquake Zone	: 5(IS 1893).

2.0 SCOPE OF WORK:

The proposed solar plant shall be primary power source for the plant. The main load consists of aviation lights for telecom tower, security/street lights, other lights & telecom equipments. The DG set will be employed only if the solar energy is not able to cater the load demand because of prolonged sunless days during the year or any undesired breakdown of the solar plant.

- 2.1 The scope of work includes preparation of Detailed Project Report (DPR), Verification of site and GHI data, Design, Manufacture and Supply of Off-grid Solar Photovoltaic Power Plant of 5 KWp.
- 2.2 The system shall be complete in all respect and comprise of equipments, modules, interfacing devices, battery banks, and related items for Off- grid Solar Photovoltaic Power Plant of 5 KWp with system output voltage of 230 volts ac 1-phase. Broad scope shall include the following but not limited to:
 - a) Solar PV modules of composite capacity as mentioned above including mounting frames, structure, array foundation and module inter connection, Array Junction boxes.
 - b) Power Conditioning Units that are remote communicable.
 - c) AC power evacuation panel with incomer, bus bars and 5 outgoing feeders.
 - d) Metering and protection /Isolation systems.
 - e) LV Power and Control Cables (Copper) including end terminations and other required accessories for both AC & DC power.
 - f) Earthing system for PV Array and all electrical equipment/devices employed, DC power system, lightning protection system, AC power system for LT, equipment etc., as required.

- g) Loading, Transportation, Unloading & delivery of equipment/materials from works/shops to OIL's site in good conditions.
- h) The system should be capable of providing all the data including that of meters and PCU to the Remote Monitoring Facilities.
- i) UPS /Battery/Battery charger system to be provided as part of the scope so as to keep control and data communication system live during total power failure. UPS system should have minimum 18 hours back up.
- j) Supply of 4(four) Numbers energy efficient outdoor LED light fittings (Reputed Make) for area lighting of suitable wattage including supply and erection of requisite poles.

II. INSTALLATION, ERECTION, TESTING AND COMMISSIONING FOR 5 KWp OFF-GRID SOLAR PV POWER PLANT FOR REPEATER STATION No.6 & 7 AT B G HILL,NARANGI, GUWAHATI, ASSAM

1.0 INSTALLATION, ERECTION, TESTING AND COMMISSIONING:

The scope of work includes Installation, erection, Testing and Commissioning of the complete Off-grid Solar Photovoltaic Power Plant of 5 KWp including, (but not limited to) the following:

- a) All equipment, modules, interfacing devices, battery banks, Solar PV modules, mounting frames, structure, array foundation , module inter connection, Power Conditioning Units, LV Power and Control Cables(Copper) including end terminations and other required accessories for both AC & DC power.
- b) Installation of 4(four) Numbers energy efficient outdoor LED light fittings (Reputed Make) for area lighting of suitable wattage including erection of requisite poles.
- c) The battery shall be installed and commissioned under the supervision of manufacturer's representative. Manufacturer's warranty card to be submitted at the time of handing over after commissioning.
- d) Earthing system for PV Array and all electrical equipment/devices employed, DC power system, lightning protection system, AC power system for LT, equipment etc, as required.
- e) Contractor shall be responsible for all civil jobs such as construction, erection installation, etc. as required depending upon designed system and the site conditions including all material supply, labourers etc. related to construction, erection, installation & commissioning.
- f) Contractor shall be responsible for all tools, tackles and test equipment required for commissioning and carrying out tests.

2.0 BOARDING, LODGING & TRANSPORT:

Contractor shall be arranging boarding & lodging for his direct and indirect personnel / engineers and transportation of men and materials to site at his own expense during the execution of contract.

3.0 SAFETY:

Upon arrival of Plant and Equipment/Materials at the Site, the Contractor shall assume custody thereof and remain responsible thereafter for safe custody until the whole plant is handed over. The contractor shall follow the safety instructions of OIL.

4.0 TRAINING:

After commissioning of the full system, Contractor shall arrange for onsite training on operation & maintenance of plant to OIL's personnel free of cost. The training shall be for a period of at least two days.

III. COMPREHENSIVE AMC OF 5 YEARS FOR 5 KWp OFF-GRID SOLAR PV POWER PLANT FOR REPEATER STATION NO. 6 & 7 AT B G HILL, NARANGI, GUWAHATI, ASSAM.

1.0 COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT

Comprehensive AMC is a part of the contract & will start after expiry of warranty period

This shall cover two parts:

- a. Scheduled/ Preventive maintenances of the plant
- b. Unscheduled/ Break Down maintenance

a) Scheduled/ Preventive maintenance:

The contractor shall have to quote the rates for Annual Maintenance Contract for 5(five) years after the warranty period, which includes bi-monthly visits/mutually agreed interval and supply of essential spares. During the visit, cleaning of the panels & tightening of the connections shall be carried out.

The AMC shall include overall supervision of maintenance activities that are required to ensure optimum performance of the Solar system as per the performance guarantee parameters indicated above and Guaranteed Generation figures for 25 years submitted by the contractor.

b) Unscheduled/ Break Down maintenance:

The contractor shall have to rectify any functional failure in the system. The contractor shall respond within 10 days from the date of information of such Break Down to rectify the problem.

The contractor shall supply all spares required during the AMC period. This includes spares for scheduled as well as unscheduled or breakdown maintenances.

IV. SPECIAL TERMS AND CONDITIONS

1.0 INSPECTION AND TESTING

- a. OIL shall witness the full factory tests/pre-dispatch of the following items prior to dispatch by the vendor to the site.
 - PV Modules
 - ACDB Panel
 - PCU & Accessories
 - Battery Bank
- b. The Contractor/Supplier shall bear all costs in connection with inspections and tests at factory/works. However, cost of OIL's engineer is respect of travel and boarding & lodging will be borne by OIL.
- c. In case any Equipment fails in inspection/tests or the test reports are not satisfactory, OIL shall reject or demand rectification/re-inspection. Re-inspection/retest shall be carried out only after necessary rectification work/replacement by the Contractor/Supplier.
- d. No Plant, Equipment and Material shall be shipped before the inspection certificate/waiver certificate and dispatch clearance is issued by the OIL.
- e. In the case of commissioning spares, operating and maintenance spares and insurance spares, the same shall be offered for inspection along with the main equipment.

2.0 WARRANTY

The mechanical structures, electrical works including power conditioners/inverters/charge controllers/ maximum power point tracker units/distribution boards/digital meters/switchgear/storage batteries, etc. and overall workmanship of the SPV power plants/systems must be in warranty against any manufacturing/ design/ installation defects for a minimum period of 5(five) years from the date of commissioning by the Contractor/Supplier. The Contractor/Supplier shall rectify any functional failure in the system free of cost within 10 days from the date of information including replacement of the faulty component(s)/accessory if required during the warranty period.

Composite Warranty Certificate of the whole plant duly signed by authorized personnel of Contractor/ Supplier must be submitted with commissioning/completion certificate along with manufacturer's warranty certificates of each components & accessories and relevant test certificates.

3.0 DELIVERY:

The successful bidder must ensure customized design as per site conditions and deliver all the materials relating to the plant at the site only.

All the transportation charges of the materials shall be in the account of the successful bidder. OIL will not bear any kind of transportation charges in any circumstances nor arrange for any transportation for any sorts of transfer.

4.0 PRICES:

The bidder shall quote prices for Narangi, Guwahati/Site, which shall remain firm till the Contract/Order execution and inclusive of all taxes/ duties etc. as well as site supervision for successful commissioning/ performance.

5.0 PAYMENT TERMS:

Before the Contractor/Supplier becomes eligible for any payment under the Contract/Order the party shall submit Bank Guarantee towards Performance Guarantee as per para 7.0 below.

Payment schedule for supply and installation & Commissioning:

- a. 10% of the total price for design, supply of equipment, materials, maintenance tools and tackles & spares shall be paid against preparation of DPR, Verification of site & GHI data, Design of the plant and approval of DPR by OIL for the plant.
- b. 60% of the total price for design, supply of all equipment, materials, maintenance tools and tackles & spares etc. shall be paid against supplies on receipt of total supplies under the Contract/Order at site.
- c. 30% of the total price for design, supply of equipment, materials, maintenance tools and tackles & spares shall be paid on successful completion of installation, commissioning and handing over of the plant to OIL.

Payment Schedule for 5 years Comprehensive AMC:

- a. 90% on pro-rata towards the Annual Maintenance Contract shall be paid against submission of duly certified invoice on quarterly basis.
- b. The last 10% payment upon completion of successful completion of Annual Maintenance Contract.

6.0 SITE VISIT:

Bidders are advised to visit the location to study the site carefully before submission of their bids.

7.0 PERFORMANCE GUARANTEES:

Before the Contractor/Supplier is entitled for any payment under the Contract/Order, he shall submit a Bank Guarantee towards Performance Guarantee/Security, 10% of the total Order Value in full valid up to end of 3(three) months after scheduled expiry of warranty period. A separate Performance Guarantee/Security shall have to be submitted for the AMC period, after signing of the AMC contract, which shall be of 10% of the total AMC Contract Value and valid upto the end of 3(three) months after scheduled expiry of post warranty AMC period. The Bank Guarantee towards Performance Guarantee/Security shall be from the Nationalized/Public Sector bank or other commercial bank as approved by OIL.

8.0 PERFORMANCE GUARANTEE PARAMETER:

Solar PV Module shall be having a minimum guarantee for a period of 25 years. In case of any deviation observed during operations from the performance guarantee parameters cited, the Contractor/Supplier shall be informed in writing by OIL. The Contractor/Supplier shall be responsible to rectify the same within 10 days of notification without any extra cost to OIL. Performance guarantee parameters on output Watts peak of solar module shall not be less than 90% at the end of 10 years and 80% at the end of 25 years.

9.0 PENALTY:

The Contractor/Supplier shall be allowed a notice period of 10 working days to rectify the fault(s) in the plant, discrepancy & deficiency in service or performance of the plant failing which a penalty of INR 100 per day shall be levied till rectification, is done.

10.0 COMPLETION TIME:

The Completion and handing over of the SPV plant shall be done within 6(six) months from date of issue of LOI/PO.

11.0 LIQUIDATED DAMAGES:

- a. OIL shall levy Liquidated Damages at the rate of 0.5% of the Contract/Order Price per week of delay in completion time, subject to a ceiling of 7.5 % of the total Contract/Order value. For this, purpose a delay of one day also shall be considered as a delay of one week.
- b. The liquidated damages on account of delay as well as performance parameters during warranty shall be limited to a maximum of 7.5% of the Contract/Order price. There shall be no cap on liquidated damages on account of performance parameters related to guaranteed generation.
- c. The Contractor/Supplier will have to satisfy the requirement of Technical Specifications. If the required parameters are not achieved, then the Contractor/Supplier will have to rectify the same within a period of one month, failing which the equipment will be rejected and all damages shall be recovered from the Contractor/Supplier.
- d. After erection/commissioning, the System supplied under the Contract/Order shall have to pass the site tests as stipulated in the Technical Specification without any deviations thereof, otherwise OIL shall have the right to reject the entire equipment & recover the amounts paid together with compensation in relation thereto or levy liquidated damages as deemed fit by OIL at his sole discretion.

12.0 INSURANCE:

The Contractor/Supplier shall take Comprehensive Marine cum Erection Insurance policy for the complete Project. The Contractor/Supplier shall be responsible for settlement of claims with the underwriters. The Contractor/Supplier shall be the loss payee under the policy and the Contractor/Supplier will arrange replacements/rectification expeditiously without waiting for settlement by insurance claim at Contractor/Supplier's own cost.

13.0 SPARES:

Bidders to provide Commissioning Spares required for smooth commissioning of the plant. Bidder shall submit a list of such commissioning spares with prices along with the bid. All such spares shall be supplied along with the main equipment. This will be considered during evaluation of the Bid. The Contractor/Supplier shall return to OIL all unused and left over commissioning spares, after successful commissioning of the plant.

Bidder shall, in addition, provide a list of recommended spares along with prices, quantity and sources. The prices of these recommended spares will not be considered while evaluating the main Bid. However, the prices shall remain firm for a period of three years after successful commissioning and handing over of the entire plant.

Successful Bidder has to provide all spares required for the plant during the warranty & AMC periods.

14.0 DRAWINGS / DOCUMENTS:

The Contractor/Supplier shall submit for each plant all initial documents in 6(six) copies, final documents in 6(six) copies along with one soft copy, and "as built" documents in 6(six) copies along with 1(one) soft copy & 1(one) reproducible.

15.0 APPROVAL OF SYSTEM DESIGN:

The design of each subsystem and bill of material intended to be used shall be submitted to respective authority for approval. Quality Assurance Plan should include design control, process control, quality control, testing of sub-system.

16.0 ARBITRATION:

The venue of arbitration shall be Guwahati.

17.0 PERFORMANCE OF CONTRACT/ORDER:

The Contractor/Supplier shall be responsible for the due and faithful performance of the Contract/Order in all respects according to the drawings, specifications, particulars and all other documents referred to in the Contract/Order. Any approval which OIL may have given in respect of the stores, materials, supplies or other particulars and the work or the workmanship involved in the Contract/Order (whether with or without test carried out by the Contractor/Supplier or the OIL) shall not relieve the Contractor/Supplier from his obligations and notwithstanding any approval or acceptance given by the OIL, it shall be lawful for OIL to reject the material, if it is found that the materials supplied and/or erection and/or construction work carried out by the Contractor/Supplier are not in conformity with the terms and conditions of the Contract/Order.

The Contractor/Supplier shall cooperate with the OIL's other Contractor/Suppliers, if any, for any associated plant and freely exchange all relevant technical information with them to obtain the most efficient and economical design and to avoid unnecessary duplication of equipment. The Contractor/Supplier shall also co-ordinate with other Contractor/Suppliers for any interface activity at his battery limits. No remuneration shall be claimed from OIL for such technical co-operation.

18.0 VALIDITY:

The validity of the Contract/Order shall not be affected, should one or more of its stipulations be or become legally invalid and such stipulation is severable from and not fundamental to the obligations of either party to the Contract/Order. In such a case, the parties shall negotiate in good faith to replace the invalid clause by an agreed stipulation which is in accordance with the applicable law and which shall be as close as possible to the Contract/Order's original intent.

19.0 HANDING OVER:

- a. On completion of the work, all rubbish, kilns, vats, tanks, materials and temporary structure of any sort or kind used for the purpose or connected with the construction/erection work shall be removed by the Contractor/Supplier and all pits and excavations filled up and the site handed over in a tidy and workmanlike condition and no final payment in settlement of the account for the said work shall be held to be due or shall be made to the Contractor/Supplier until such Site clearance and restoration shall have been effected by him and such clearance and restoration may be made by OIL at the expenses of the Contractor/Supplier in the event of his failure to comply with this provision within 7(seven) days after receiving notice in writing from OIL to that effect. If it becomes necessary for OIL to have the site cleared as indicated above at the expense of the Contractor/Supplier, OIL shall under no circumstances be held liable for any losses or damages to such of Contractor/Supplier's property as may be on such site due to such removal there from, which removal may be effected by means of public sale of such materials and property or in such a way as seems fit and most convenient to the OIL.
- b. For the purpose of removing surplus materials in its original form, the Contractor/Supplier shall submit the documents/records evidencing the entry of materials inside the Plant by producing the Gate Entry Permits and consumption statements based on approved drawings to establish the surplus quantity of the materials belonging to the Contractor/Supplier. OIL shall allow the Contractor/Supplier to remove such materials if it is satisfied, in its sole and absolute discretion, only after completion of the entire Work.
- c. No imported Material shall be allowed to be taken out other than imported tools and tackles and instruments brought by the Contractor/Supplier on draw back basis and provided, he has carried out necessary documentation at the time of taking such items inside the Plant.
- d. The Contractor/Supplier shall return to OIL all unused and left over commissioning spares, after successful commissioning of the plant.
- e. OIL shall have the right to take possession or use any completed or partially completed Work. Such possession or use shall not be deemed to be an acceptance of any work done not in accordance with the Contract/Order. However, any damage to such work solely due to such provision or use shall be to the OILs account.

20.0 USE OF COMPANY'S EQUIPMENT:

Contractor/Supplier shall assume the risk of and shall be solely responsible for damage to and loss or destruction of materials and equipment during work or provided by Company in some circumstances. In case there is a loss or damage to the company's materials/equipment for causes attributable to Contractor/Supplier, the Contractor/Supplier shall compensate the company.

21.0 WAIVERS AND AMENDMENTS:

It is fully understood and agreed that none of the terms and conditions of the Contract/Order shall be deemed waived or amended by either party unless such waiver or amendment is executed in writing by the duly authorized agents or representatives of such party. The failure of either party to execute any right of termination shall not act as a waiver or amendment of any right of such party provided hereunder.

NOTE: Compliance statements relating to all points shall be provided by the bidder with the bid. Deviations, if any, should also be mentioned clearly & categorically in the offer/compliance statement. Any partial responded bid shall not be considered for evaluation.

ANNEXURE - BB**TECHNICAL SPECIFICATIONS**

Solar PV system must conform to the Balance of System (BoS) items/components of the SPV power plants of Ministry of New and Renewable Energy (MNRE) specifications or MINIMAL TECHNICAL REQUIREMENTS / STANDARDS FOR SPV SYSTEMS/PLANTS TO BE DEPLOYED UNDER THE PROGRAMMES OF MNRE, wherever any technical matters or standards are not spelt in the technical specifications of OIL.

A. SOLAR PHOTO VOLTAIC MODULE:

The total solar PV array capacity should not be less than 5 KWp and should comprise of polycrystalline of minimum capacity 200 Wp and above. The module type must be qualified as per IEC 61215/IS 14286 latest edition for Crystalline Silicon PV Module.

1. The PV module shall perform satisfactorily in humidity up to 100% with temperature between 0°C to (+)55°C.
2. The predicted electrical degradation at the end of the period of 15 years shall be less than ten (10) per cent of the full rated original output.

Other general requirement for the PV modules and subsystems shall be as follows:

- a. Raw materials and technology employed in the module production processes shall have to be certified and a certificate giving details of major materials i.e. cells, glass, back sheet, their makes and data sheets to be submitted for the modules being supplied by the bidder.
- b. The rated output power of any supplied module shall have tolerance of +/- 3% as per MNRE standard specs.
- c. Except where specified, the front module surface shall consist of impact resistant, low-iron and high-transmission toughened glass.
- d. The module frame, if any, shall be made of a corrosion-resistant material which shall be electrolytically compatible with the structural material used for mounting the modules.
- e. The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for provision of by-pass diode. The box shall have hinged, weather proof lid with captive screws and cable gland entry points or may be of sealed type and IP65 rated.

ARRAY STRUCTURE

1. Wherever required, suitable number of PV panel structures shall be provided. Structures shall be of flat-plate design either I or L sections.
2. Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts. Galvanizing should meet ASTM A-123 hot dipped galvanizing or equivalent which provides at least spraying thickness of 70 microns on steel as per IS5905, if steel frame is used. Aluminium frame structures with adequate strength and in accordance with relevant BIS/ international standards can also be used.
3. Structures shall be supplied complete with all members to be compatible for allowing easy installation at the rooftop site.
4. The structures shall be designed to allow easy replacement of any module & can be either designed to transfer point loads on the roof top or UDL as per site conditions.

5. Each structure shall have a provision to adjust its angle of inclination to the horizontal as per the site conditions.
6. Each panel frame structure is so fabricated as to be fixed on the ground or roof. The structure should be capable of withstanding a wind load of 200 km/hr after grouting & installation. The front end of the solar array must be one meter above the ground. Grouting material for SPV structure shall be as per M15 (1:2:4) concrete specification.
7. The structures shall be designed for simple mechanical and electrical installation. There shall be no requirement of welding or complex machinery at the installation site. If prior civil work or support platform is absolutely essential to install the structures, the supplier shall clearly and unambiguously communicate such requirements along with their specifications in the bid. Detailed engineering drawings and instructions for such prior civil work shall be carried out prior to the supply of Goods.

B. POWER CONDITIONING UNIT (PCU):

The PCUs required shall be of 5 KVA with provision for battery back-up, should convert DC power produced by SPV modules in to AC power and adjust the voltage & frequency levels to suit the local load conditions. The 5 KVA PCU with battery back- up shall feed power to the lighting / dedicated loads.

1. Common Technical Specification:

Control Type	: Voltage source, microprocessor assisted, output regulation
Output voltage	: 1 phase, 230 V ac (+/- 15.0 % V ac)
Frequency	: 50 Hz (+3 Hz, -3 Hz)
Continuous rating	: 5 KVA inverter
Nominal Power	: 5 KVA
Total Harmonic Distortion	: less than 3%
Operating temperature Range	: 0 to 55 deg C
Housing cabinet	: PCU to be housed in suitable switch cabinet, Within IP 20 degree of ingress protection
PCU efficiency	: 85 % and above at full load
Power Control	: MPPT

2. MPPT (Max. power point tracking) controller, inverter and associated control and protection devices etc. all shall be integrated into PCU.
3. It shall have protection features such as over voltage, short circuit, over temperature etc.
4. The inverter shall be efficient based on MPPT with IGBT(Insulated-gate bipolar transistor) reliable power based design.
5. The system should be capable of providing all the data including that of meter and PCU through Built-in with data logging.
6. PCU shall have facility to display basic parameters of the system.
7. PCU shall operate seamlessly without being effected on any power cut to the load.
8. Indications (through LEDs & LCD display)
 - # Inverter ON
 - # LOAD ON
 - # Inverter under voltage/over voltage
 - # Inverter over load
 - # Inverter over temperature.

9. Protections:

- # Over voltage both at input & output
- # Over current both at input & output
- # Over/under frequency
- # Over temperature
- # Short circuit
- # Protection against lightening
- # Surge voltage induced at output due to external source.

10. Bidder shall provide Manufacture's data sheet, service assurance & warranty. The machine shall be installed & commissioned under the supervision of manufacturer's representative. Manufacture's warranty card to be submitted to OIL at the time of handing over after commissioning.

C. BATTERY BANK:

The battery bank is to be designed to provide the backup power for feeding the dedicated loads in the event of failure of grid supply.

Storage Capacity : 48V, 600 AH, C10 or 96V 300AH C10 or equivalent.
 Type : Tubular batteries from reputed manufacturers.

The Battery bank specification should be as mentioned below:

1. The batteries shall be solar photo voltaic batteries of Tubular type, low maintenance, lead Acid and made of hard rubber container.
2. Storage batteries should conform IEC 61427 / IS 1651 / IS 133369 as per specifications.
3. The batteries shall use 2 V cells and battery capacity is to be designed at C10 rate with end cell cut off voltage of 1.85 V / cell.
4. Battery terminal shall be provided with covers.
5. Batteries shall be provided with micro porous vent plugs with floats.
6. Charging instructions shall be provided along with the batteries.
7. Suitable carrying handle shall be provided.
8. A suitable battery rack with interconnections & end connector shall be provided to suitably house the batteries in the bank. The features and dimensions of the battery rack shall be provided along with the bid document.
9. The batteries shall be suitable for recharging by means of solar modules via incremental / open circuit regulators.
10. Bidder shall mention the design cycle life of batteries at 80%, 40% & 20% depth of discharge at 27 deg. C.
11. The batteries shall be designed for operating in ambient temperature of site in the state of Assam.
12. The self-discharge of batteries shall be less than 3 % per month at 20 deg. C and less than 6% per month at 30 deg. C
13. The charge efficiency shall be more than 90% up to 70% state of charge.
14. The topping up frequency shall be 12 – 18 months.
15. Bidder shall provide Manufacture's the data sheet, service assurance & warranty. The battery shall be installed & commissioned under the supervision of manufacturer's representative. Manufacturer's warranty card to be submitted at the time of handing over after commissioning.

D. AC DISTRIBUTION:

The AC power output of the inverter shall be fed through a 1-phase, 230V, Automatic change-over switch to the AC Distribution Board. This automatic transfer switch shall facilitate feeding the ACDB from DG Set only in case of failure of solar system. Both Solar & DG incomer shall have separate energy meter (Make & type to be approved by OIL) to measure the quantum of energy delivered.

Cables of appropriate size complying Indian Standards to be used in the system shall have the following characteristics:

Temp. Range +10°C to +80°C.

Excellent resistance to Heat, Fire, oil, cold, water, abrasion, UV radiation.

Flexible, armoured, stranded, copper.

E. AUTHORIZED TESTING LABORATORIES/ CENTRES: MNRE approved

F. LIGHTNING PROTECTION & GROUNDING:

The Lightning conductors & grounding shall be provided as per Indian Standards (IS) in order to protect the entire Solar Array yard from Lightning strikes.

G. LED SECURITY LIGHT:

12 Watt, 230 Volt LED Street Light Fittings, Make: Any Reputed Indian Brand.

NOTE: Offer and Compliance statements relating to all items shall be provided by the bidder with the bid. Deviations, if any, should also be mentioned clearly & categorically in the offer/compliance statement. Any partial responsive bid shall not be considered for evaluation and rejected.

ANNEXURE - CC**BID REJECTION CRITERIA & BID EVALUATION CRITERIA****I. BID REJECTION CRITERIA (BRC):**

The bids must conform to the specifications, terms and conditions given in the tender document. Bids shall be rejected in case the items offered do not conform to the required minimum/ maximum parameters stipulated in the technical specifications and to the respective international /national standards wherever stipulated.

Notwithstanding the general conformity of the bids to the stipulated specifications and terms and conditions, the offer/ offers will be considered as non-responsive and is/are liable to be rejected, if the following conditions are not fulfilled:

(A) TECHNICAL

- 1.0 The offered Solar PV plant shall be rated for a minimum of 5 KWp.
- 2.0 The 5 KWp Solar PV Plant shall be a complete system and meet the specifications as per Technical Specifications of the tender and conforming to Ministry of New and Renewable Energy (MNRE) specifications.
- 3.0 Any offer which does not include all the jobs/services mentioned in the Scope of Work will be considered as incomplete and rejected.
- 4.0 Bidder shall be an Original Equipment Manufacturer (OEM) of Solar PV module or Bidders shall be Channel partner with valid accreditation of MNRE.
- 5.0 Bidder should have experience of Supply and Commissioning of minimum 1(one) number of not less than 5 KWP Solar PV power plant during the last 5 (five) years from the original stipulated bid closing date of the tender.
- 6.0 The Bidder should furnish documentary evidences in support of clause 4.0 and 5.0 above.

Following are the acceptable documentary evidences:

- i. Copy of Work Order/ Contract agreement and completion certificate.
- ii. Valid MNRE Channel Partner Certification copy.

7.0 COMPLETION TIME:

The completion and handing over of the SPV plant shall be done within 6(six) months from date of issue of LOI/Purchase Order. Bidder quoting completion time more than the above shall be rejected. However, bidder to quote their best completion time.

(B) FINANCIAL :

- 1.0 Annual Financial Turnover of the bidder during any of preceding three financial / accounting years from the original bid closing date should be at least INR 6,00,000.00.
- 1.1 **Net worth** of bidder must be positive for preceding financial/ accounting year.
- 2.0 Considering the time required for preparation of Financial Statements, if the last date of preceding financial / accounting year falls within the preceding six months reckoned from the original bid closing

date and the Financial Statements of the preceding financial / accounting year are not available with the bidder, then the financial turnover of the previous three financial / accounting years excluding the preceding financial / accounting year will be considered. In such cases, the Net worth of the previous financial / accounting year excluding the preceding financial / accounting year will be considered. However, the bidder has to submit an affidavit/undertaking certifying that the balance sheet/Financial Statements for the financial year (as the case may be) has actually not been audited so far.

Notes:

- a) For proof of Annual Turnover & Net worth any one of the following document must be submitted along with the bid:-
 - i) A certificate issued by a practicing Chartered/Cost Accountant (with Membership Number and Firm Registration Number), certifying the Annual turnover & Net worth as per format prescribed in ANNEXURE GG.
 - OR
 - ii) Audited Balance Sheet along with Profit & Loss account.
- b) In case the bidder is a Central Govt. Organization/PSU/State Govt. Organization/Semi-State Govt. Organization or any other Central/State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidence for the same.

(C) COMMERCIAL

- 1.0 Bids are invited under **SINGLE STAGE COMPOSITE BID SYSTEM**. Bidders shall quote accordingly.
- 2.0 **Bid security of INR 24,000.00 shall be furnished as a part of the bid.** Any bid not accompanied by a proper bid security in ORIGINAL will be rejected without any further consideration. For exemption for submission of Bid Security, please refer Clause No. 8.8 of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. **The Bid Security shall be valid till 15.05.2017.**
- 3.0 Bidders must confirm that goods, materials or plant(s) to be supplied shall be new of recent make and of the best quality and workmanship and shall be in warranty for a period of 5(Five) years from the date of commissioning of the complete package at site against any defects arising from faulty materials, workmanship or design. Defective goods/materials or parts rejected by OIL shall be replaced immediately by the supplier at the supplier's expenses at no extra cost to OIL (*Please refer Annexure AA Clause no. (IV) 2.0 above*).
- 4.0 The prices offered will have to be firm through delivery and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and rejected.
- 5.0 **Validity of the bid shall be minimum 90 days. Bids with lesser validity will be rejected.**
- 6.0 All the Bids must be Digitally Signed using #Class 3# digital certificate (e-commerce application) with organisation name as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. **The bid signed using other than #Class 3# digital certificate, will be rejected.**
- 7.0 Bids received after the bid closing date and time will be rejected. Similarly, modifications to bids received after the bid closing date & time will not be considered.
- 8.0 Bids containing incorrect statement will be rejected.

- 9.0 No offers should be sent by Telex, Cable, E-mail or Fax. Such offers will not be accepted.
- 10.0 The following points are deemed as “non-negotiable” and offer shall be rejected straightaway without seeking clarification:
- Validity of bid shorter than validity indicated in the tender.
 - Original Bid Security not received within the stipulated date and time mentioned in the tender.
 - Bid security with (a) Validity shorter than the validity indicated in tender and/or (b) Bid security amount lesser than the amount indicated in the tender.
- 11.0 Bidders are required to submit the summary of the prices in their commercial bids as per price bid format (Summary), given below :

PRICE BID FORMAT:

Item No.	Item Description	Qty.	UoM	Unit Price (INR)	Total Price (INR)
10	Detailed Project Report (DPR), Design, Manufacture, Supply, Packing & Forwarding of 5 KWp Off-Grid Solar PV Power Plant for Repeater Station No. 6 & 7 at B G Hill, Narangi, Guwahati, Assam.	1	No.		
20	Installation, Erection, Testing and Commissioning etc. of 5 KWp Off-Grid Solar PV Power Plant for Repeater Station No. 6 & 7 at BG Hill, Narangi, Guwahati, Assam.	1	LS		
30	Comprehensive Annual Maintenance Contract for a Period of 5(Five) years 5 KWp Off-Grid Solar PV Power Plant for Repeater Station No. 6 & 7 at B G Hill, Narangi, Guwahati, Assam. <i>(Please provide year-wise AMC charges including all taxes on LS basis)</i>	AMC Charges for 1 st year			
		AMC Charges for 2 nd year			
		AMC Charges for 3 rd year			
		AMC Charges for 4 th year			
		AMC Charges for 5 th year			

NOTE:

- The bidder shall quote prices on FOR Narangi, Guwahati/site basis, which shall remain firm till the contract execution and shall be inclusive of all taxes/duties (except octroi/entry tax), insurances etc. as well as site supervision for successful commissioning/performance, if any.
- Bidder to indicate/show transportation charges including all applicable taxes to the site separately in their Total FOR Narangi Price mentioned in Note (i) above.
- Bidder to provide the Total Volume and Gross Weight of the consignment for transportation.
- To evaluate the inter-se-ranking of the offers, Assam entry tax on purchase value will be loaded as per prevailing Govt. of Assam guidelines as applicable on bid closing date. Bidders may check this with the appropriate authority while submitting their offer.
- Bidders to provide Commissioning Spares required for smooth commissioning of the plant. Bidder shall submit a list of such commissioning spares with prices along with the bid. All such spares shall be supplied along with the main equipment. This will be considered during evaluation of the Bid. In case bidder does not provide such list, it will be considered that price for the same has been included in the quoted price.
- Bidder shall, in addition, provide a list of recommended spares along with prices, quantity and sources. The prices of these recommended spares will not be considered while evaluating the Bid.

II. BID EVALUATION CRITERIA (BEC) :

The bids conforming to the specifications, terms and conditions stipulated in the enquiry and considered to be responsive after subjecting to the Bid Rejection Criteria will be considered for further evaluation as per the Bid Evaluation Criteria given below:

- 1.0 The evaluation of bids will be done as per the Price Bid Format (SUMMARY) detailed vide Para 11.0 of BRC.
- 2.0 If there is any discrepancy between the unit price and the total price, the unit price will prevail and the total price shall be corrected. Similarly, if there is any discrepancy between words and figure, the amounts in words shall prevail and will be adopted for evaluation.
- 3.0 Evaluation will be done on “total contract cost” basis to ascertain the lowest bid. (Clause 11.0 of the BRC)
- 4.0 Other terms and conditions of the enquiry shall be as per General Terms and conditions for LCB Tender. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (BEC/BRC) mentioned here contradict the Clauses in the General Terms & Conditions of LCB Tender of the tender and/or elsewhere, those mentioned in this BEC/BRC shall prevail.