

WORK ORDER
for Rooftop Grid connected SPV Systems of capacity.....kWp.

Dated:

To

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Mob.:

E-mail:

Sub.: Work Order for Rooftop Grid connected SPV Systems of capacity.....kWp.

Ref: MANIREDA's EOI No. 4/SPP/RT/MANIREDA/2017-18 dated 19/8/2017.

Sir,

With reference to above Expression of Interest (EOI) of MANIREDA, I, of District, Manipur is pleased to place the Work Order for Grid connected Rooftop SPV Systems of capacity.....kWp at a total cost of Rs.-/- (Rupees.) only.

The scope of work, details of cost, terms & conditions are as follows;

1. Scope of Work:

The scope of work for installation of Rooftop Grid connected SPV Systems shall involve;

- (i) Supply, installation and commissioning of Rooftop Grid connected SPV Systems including 5 (five) years of Maintenance and Performance Warranty Contract (MPWC).
- (ii) The Installer/Contractor shall arrange for supervision and maintenance of the power plant system for 5 years from the date of commissioning. During this period, any fault developed on the Solar Power Plant such as wear & tear, overhauling, breakdown of plant equipment, insurance and replacement of defective (if any) of SPV modules/PCU/ spares/earthing unit/lightning arrestor shall be carried out by the installer during the MPWC period. Replacement of parts shall be free of cost against manufacturing defect only.
- (iii) The Contractor shall arrange for transportation, loading & unloading of materials at site and shall also be responsible for security and insurance of the power plant & equipment till the plant is handed over to the beneficiary after completion in all respect.
- (vi) The module mounting structures should be of Galvanized Iron (GI) or Aluminium fixed in a proper manner on Rooftop of the beneficiary to withstand a wind speed of 200 km/hr.

2. Cost of the work:

Sl. No.	Description	Quantity	Make	Amount (Rs.)
1.	SPV Modules, PCU/Inverter, Bidirectional Meter, Module Mounting Structure, ACDB with SPD and MCB, DCDB with SPD and Fuse, Earthing Unit, Lightning Arrestor, Wires & Cables, Installation & Commissioning Charge etc.			
2.	Maintenance and Performance Warranty (MPWC).			
	Total			
	GRAND TOTAL			

(Rupees.) only.

**** All applicable taxes and duties should be borne by the firm.**

3. Site for installation:

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4. Terms of Payment:

Payment will be made phase wise as follows:

- a) 70% amount of the work value shall be paid by purchaser/beneficiary after successful installation, commissioning of the Solar PV Power Plant and injection of surplus power (if any) into the to the purchaser/beneficiary and release of applicable CFA by MNRE, GoI.
- b) 20% amount of the work value shall be paid by purchaser/beneficiary after 3(three) months from date of commissioning of the Solar PV Power Plant at site subject to successfully passing the performance ratio test and release of applicable CFA by MNRE, GoI.
- c) Balance 10% of Total Contract value shall be treated as performance security and shall be paid against satisfactory performance of the solar PV Power Plant during warrantee, operation and maintenance period which includes maintaining a minimum annual performance ratio of 75%. This amount shall be paid by the purchaser/beneficiary in 5(five) equal annual installments, starting from completion of one year from the date of commissioning at site. The bidder shall have to submit annual performance & functionality report to Purchaser/beneficiary and MANIREDA for release of annual payments.

OR

Payment of 90% of the total contract value shall be made as per the agreement made between the firm and the consumer subject to availability of applicable CFA from MNRE and the State Govt. 10% of the total work order value to be retained for five years during MPWC period and release as mentioned at (c) above.

5. Completion Report:

The Contractor shall submit 2(two) copies of Completion Reports, 1(one) copy to MANIREDA and 1(one) copy to the Consumer/Promoter, both in Hard and Soft copies wherein the details of equipment such as Serial Nos. of the SPV modules, PCU/inverter, Bidirectional meter, ACDB, DCDB, solar meter etc. alongwith photographs of the systems installed. A Completion Certificate, certified by Consumer/Promoter shall be included in the Completion Report.

6. Scope of Maintenance and Performance Warrantee Contract (MPWC):

- (i) The Contractor should maintain the Power Plant for a period of 5(five) years from the date of commissioning.
- (ii) The Contractor will be paid only maintenance charges for the guarantee period of 60 months. The Contractor will bear the cost of all consumables, spare parts and repairing expenses during the guarantee period.
- (iii) During the MPWC period, if there is any loss or damage of any equipment/component of the power plant due to mishandling/mismanagement or due to other reasons, whatsoever, the contractor shall be responsible for immediate replacement/rectification. The damaged component may be repaired, if it is understood after examination that after repairing, the performance of the component shall not be degraded, otherwise the defective component shall have to be replaced by new one without any extra cost.
- (iv) **All repairing & replacement works are to be completed by the contractor within 24 hours from the time of occurrence of fault/defect** and the contractor shall notify MANIREDA indicating nature of fault & cause of damage etc. immediately.

7. Warranty:

- i) The mechanical structures, electrical works including power conditioners/inverters/ distribution boards/digital meters/ switchgear, etc. and overall workmanship of the SPV power plants/systems must be warranteed against any manufacturing/design/installation defects for a minimum period of 5 years.

- ii) PV modules used in solar power plants/systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years. Warranty Card of all components supplied (SPV modules, Inverter, Bidirectional Meter, Solar meter, cables etc.) must be provided to MANIREDA. It must indicate the Sl. No., Model No., Make, Year of manufacturing etc. for every component. The Firm should furnish the above Warranty Cards and photos of materials supplied to claim payment along with bill of materials.

Yours faithfully,

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Copy to:

- 1.The Managing Director, MSPDCL.
2. The Director, MANIREDA.