

**Office of the**  
**MANIPUR RENEWABLE ENERGY DEVELOPMENT AGENCY (MANIREDA)**  
 (An Autonomous Govt. Institute under the Power Department)  
 2<sup>nd</sup> Floor, South Block, Secured Office Complex, Near 2<sup>nd</sup> M.R. Gate, Imphal-Dimapur Road, Imphal-795001

No.62/98/2017/RT/Pvt.-II/MANIREDA:

Dated:13<sup>th</sup> Oct., 2017

Subject: List of Empanelled Firms, for implementation of Grid Connected Rooftop Solar Power Plants in Private residential/ Institutional /Health sectors registered under Societies Registration Act and commercial sectors in Manipur – Second Phase.

The Manipur Renewable Energy Development Agency (MANIREDA) is implementing 'Grid Connected Rooftop Solar Power Plants Programme' in the state. MANIREDA had invited EOI for empanelment from approved Channel Partners of MNRE, GoI, for implementation of grid connected rooftop systems in Private residential/ Institutional /Health sectors registered under Societies Registration Act and commercial sectors in Manipur vide EOI no. 4/SPP/RT/MANIREDA/2017-18, dtd. 19<sup>th</sup> August 2017, in Manipur. Altogether, 16(sixteen) firms were qualified and empanelled as Channel Partners of MANIREDA for the programme in the second phase. Details of the firms and their offered rates for various capacities are as follows:

Sl. No	Name of Firm with address	Solar Panels	Grid Tied Solar Inverters	MAXIMUM PRICE QUOTED / kWp						
				1 to 3 KWp	Above 3 to 8 kWp	Above 8 to 10 kWp	Above 10 to 50 kWp	Above 50 to 100 kWp	Above 100 to 300 kWp	Above 300 to 500 kWp
1.	M/S KCS Solar Power Pvt. Ltd. 1277, Aggarwal Millenium Tower – II, Netaji Subhash Palace, Pitampura, New Delhi – 110034 E-mail: <a href="mailto:info@kcssolarpower.com">info@kcssolarpower.com</a> Ph.# +91-40151500	KOTAK URJA Private Ltd., Bangalore Crystalline Silicon Photovoltaic Modules	Delta / Fronius	71,500/-	69,500/-	68,000/-	64,500/-	57,500/-	54,000/-	51,500/-
2.	M/s TIN TIN Power LLP, Pishum Thong Ningom Leikai, Imphal West-795001, Manipur E-mail : <a href="mailto:albertlaik@outlook.com">albertlaik@outlook.com</a> Ph. # 8132953691/9862271561	HR Solar Solution Kolkata.	Delta, Taiwan	76,200/-	65,700/-	65,700/-	61,700/-	59,130/-	57,800/-	57,800/-
3.	M/s Achoubi Enterprises, New Checkon Road, Imphal East-795001, Manipur E-mail: <a href="mailto:achoubienterprises@gmail.com">achoubienterprises@gmail.com</a> Ph.# 0385-2442250/ 9612694616	SOVA SOLAR LTD, Kolkata Authorisation from SOVA / Optical Power Energy India Ltd. LUBI Electronic Gujarat.	Power One Micro system Pvt. Ltd. Bangalore	79,900/-	79,800/-	79,500/-	79,000/-	78,500/-	78,000/-	70,000/-
4.	M/s Shyama Enterprises, Bamon Leikai Mange Makhong, Imphal East-795005, Manipur E-mail: <a href="mailto:shyamasolar@gmail.com">shyamasolar@gmail.com</a> Ph.# 09910699331/03852444607	ALPEX Exports Pvt. New Delhi	ABB, Germany / Power One, Italy	81,000/-	78,000/-	74,000/-	70,000/-	61,000/-	61,000/-	61,000/-

5.	M/s Mangaal Sustainable Solutions Pvt. Ltd., Uripok Sorbon Thingel, Opp. Pukhri Achouba, Imphal West-795 001, Manipur. E-mail: <a href="mailto:contact@mangaal.com">contact@mangaal.com</a> Ph.# 8974086709	ALPEX Export Pvt Ltd. Bangalore	Power One Micro system Pvt. Ltd. Bangalore	82,500/-	77,500/-	74,500/-	69,000/-	65,000/-	62,500/-	60,000/-
6.	M/s Trom Solar, B-53/A, G.I.D.C., Electronic Estate, Sector-25, Gandhinagar-382024, Gujarat, India E-mail: <a href="mailto:marketing.exe@tromsolar.com">marketing.exe@tromsolar.com</a> Ph.# 7923288187	TOPSUN ENERGY LTD., Gandhinagar / Australian Premium Solar Pvt. Ltd. Crystalline Silicon Photovoltaic Modules	ABB /KACO	84,000/-	84,000/-	84,000/-	79,000/-	79,000/-	74,000/-	74,000/-
7.	M/s AARK Digital Private Ltd., Shreemanjari, Suite#7, 2 <sup>nd</sup> Floor, 8/1A, Sir William Jones Sarani, Kolkata-700 071 E-mail: <a href="mailto:aark@kanoitea.com">aark@kanoitea.com</a> Ph.# 22178000 / 4060 8001	Vikram Solar Pvt. Ltd., Kolkata 6" Poly Crystalline Silicon Photovoltaic Modules	DELTA/ KACO	85,000/-	80,000/-	80,000/-	78,000/-	75,000/-	70,000/-	70,000/-
8.	M/s Ujaas Energy Ltd., 701, NRK Business Park, Vijay Nagar Square, Indore-452 010, M.P. E-mail: <a href="mailto:info@ujaas.com">info@ujaas.com</a> Ph.# 91-731-4715344	WAAREE Energy ltd, Mumbai/ Vikram Solar, Kolkata.	Growatt, China/ DELTA Electronic, Taiwan/ ABB , Germany	87,696/-	87,696/-	87,696/-	74,000/-	73,000/-	72,000/-	72,000/-
9.	M/s S.S. Electronics, Khurai Thangjam Leikai, P.O-Lamlong, Imphal East-795001, Manipur E-mail: <a href="mailto:ssingsse@gmail.com">ssingsse@gmail.com</a> Ph.# 8732021805 / 8974571965	RENEWSYS Pvt. Ltd. Hydrabad	Power One Micro systems Pvt. Ltd. Bangalore/ DELTA, Taiwan/ ABB, Germany	91,200/-	87,600/-	77,400/-	74,400/-	72,000/-	70,200/-	67,200/-
10.	M/s Swastik Enterprises, 10A, Hospital Street, 3 <sup>rd</sup> floor, Suite No. 303, Kolkata-700 072 E-mail: <a href="mailto:info@swastikenterprises.net">info@swastikenterprises.net</a> Ph.# 091-33-22152570 / 22151531	PREMIER Solar, AP. Authorization Letter from PREMIER Solar enclosed.	M/s DELTA electronic, Taiwan	96,000/-	85,000/-	80,000/-	72,000/-	70,000/-	68,000/-	66,000/-
11.	M/s Dynamic Powers, Killa no. 83/20, Behind Plot No. 132, HSIDC, Kundli, Dist- Sonapat, Haryana-131 028 E-mail: <a href="mailto:dynamicpowerbattery@yahoo.com">dynamicpowerbattery@yahoo.com</a> Ph.# 0130-2371041, 2219641	INFO SOLAR Pvt. Ltd., Kundli Haryana,. Crystalline Silicon Photovoltaic Modules	Delta Electronics, Taiwan	98,100/-	95,100/-	90,100/-	88,100/-	85,100/-	80,100/-	75,100/-
12.	M/s Sunshine Power Products Pvt. Ltd., 130/9, Bakhrahat Road, Hanspukur, Green Park, P.O. Joka, Kolkata-700 104, West Bengal E-mail: <a href="mailto:info@sunshinesolar.co">info@sunshinesolar.co</a> Ph.# 033 24980508	Sunshine Power Products Pvt. Ltd. Kolkata. solar,	M/s POWER-One, Italy/ M/s KACO , Germany/ ABB/ OMNIC	1,01,800/-	97,900/-	90,550/-	90,550/-	87,925/-	68,800/-	68,800/-

13	M/s Relyon Solar Pvt. Ltd., Adisa Icon, Mumbai Bangalore Highway, Opposite HEMRL, Bhavdhan, Pune-411 021 E-mail: <a href="mailto:Inquiry@Relyonsolar.Com">Inquiry@Relyonsolar.Com</a> Ph.# 09748705211	(a) SOVA Solar, Kolkata	SMA New Energy Ltd, China	1,06,950/-	85,970/-	85,970/-	64,720/-	63,980/-	61,490/-	58,850/-
14	M/s Havells India Ltd., QRG Towers, 2D, Sector 126, Expressway, Noida – 201304, U.P. (India) E-mail: <a href="mailto:guwahati.office@havells.com">guwahati.office@havells.com</a> Siddharth.das@havells.com Ph.# 0361-2458923/2134521	Havells India Ltd., Noida	Solar Edge Technology, Israel	1,18,710/-	1,09,670/-	96,280/-	79,080/-	-	-	-
15	M/s T & T Projects Ltd., T-3, Parmeshwari Bldg., Chatribari, Rd., Guwahati-781 001, Assam Email : <a href="mailto:projects@tntprojects.in">projects@tntprojects.in</a> Ph # 0361-2546096	SOVA SOLAR LTD, Kolkata Authorisation from SOVA / Vikram Solar Polycrystalline modules enclosed.	M/s Fronius International GmbH, Austria / Power One	1,35,000/-	1,35,000/-	1,30,000/-	1,25,000/-	1,05,000/-	95,000/-	92,000/-
16	M/s Better Power Services Pvt. Ltd., A.K. Azad Road, Rehabari, Besides SBI ATM, Guwahati-781008, Assam E-mail: <a href="mailto:rnd@betterpower.ci.in">rnd@betterpower.ci.in</a> Ph.# 03612637721	AMMVEE Photovoltaic Pvt. Ltd, Bangalore	DELTA, Taiwan	1,53,410/-	1,51,310/-	1,50,260/-	1,48,160/-	1,48,160/-	-	-

**INSTRUCTIONS:**

- The validity for empanelment of the firms is for one year from the date of empanelment of channel partners / till the change in existing benchmark cost of GCRT by MNRE, whichever is earlier.
- Firms who have submitted EMD of Rs 3.00 lakhs shall be converted into Security Deposit. Those firms who enclosed NSIC Certificate in Tender document shall submit Security Deposit of Rs. 3.00 lakhs in the form of DD in favour of Director, MANIREDA, within ten days from the date of empanelment of this EOI.
- Selection of the firm shall be done by the promoter/beneficiary on their preference.
- All firms are to achieve minimum of 30 kWp each for implementation within three months of empanelment, failing which, the firms shall lead to de-empanelment as channel partner from MANIREDA.
- All firms should submit the list of promoters/beneficiaries to be installed to MANIREDA, minimum of 3(three) days ahead of installation either in hard or soft copy through mail with the following details
  - Name of the consumer, address, capacity of the plant, phone no. etc.
  - Serial Nos. of the solar modules, Make, capacity, Nos. etc.
  - Serial Nos. of Inverters, Make, capacity, Nos. etc.
  - Balance of Systems etc.
 without which MANIREDA shall not entertain as beneficiaries of grid connected rooftop solar power plants. Any change in panels / inverters etc. should be informed to MANIREDA in time or else after post installation verification, if the materials are found different, the firm shall be de-empanelled without any notice.
- Similarly, information should be given to the authority of MSPDCL about the particulars of the consumers three days prior to integration to grid with a copy to MANIREDA.

7. Any change of capacity / installation site etc. should be well informed to MANIREDA ahead, for it requires to newly preparing the PPA documents before installation, failing which, the subsidy for the consumers shall not be released.
8. Memorandum of Agreement should be signed in between the firm and the consumer. A draft copy is placed on the website [www.manireda.com](http://www.manireda.com).
9. A draft copy of the supply order to be placed by the beneficiary is also available at our website [www.manireda.com](http://www.manireda.com).
10. Three copies of Project Completion Report should be submitted to MANIREDA both in hard and soft copies alongwith photographs.
11. Specification as per MNRE is enclosed as Annexure. If deviated, subsidy amount shall not be released until fully satisfied by MANIREDA and the consumers.
12. For any queries / clarifications, please visit [www.manireda.com](http://www.manireda.com) under Grid Connected Solar Rooftop.

Sd/-  
(L. Manglem Singh)  
Director, MANIREDA

Copy to:

1. All the Empanelled Firms.
2. A.C.O. for uploading in MANIREDA website.

Sl.No.	Component	Specifications
1.	PV Module	<ul style="list-style-type: none"> <li>- Indigenous , Specify the technology,</li> <li>- IEC 61215 certified,</li> <li>- IEC 61730 part I and part II for safety qualification.</li> <li>- RFID Tag and Fill factor.</li> </ul>
2.	Inverter	<ul style="list-style-type: none"> <li>- IEC 61683, EN 50530 for performance Evaluation.</li> <li>- IEC 62116 Islanding protection.</li> <li>- IEC 61727 Utility interface.</li> <li>- IEC 60068-2 Environmental</li> <li>- IP 65 and IP 21 Ingress protection.</li> </ul>
3.	Mounting Structure	<ul style="list-style-type: none"> <li>- Module support mild steel, hot dipped galvanized (minimum 80 microns), Size of angle iron should not be less than 50*50*5mm</li> <li>- Structure on concrete foundation (1:2:4)/bolted to ground.</li> <li>- Wind stress greater than 150 Km/hr.</li> <li>- Inclination angle adjustment 10 to 40 degrees with step of 10 degrees.</li> <li>- Corrosion Resistant nuts and bolts.</li> </ul>
4.	Cabling and Junction Box	<ul style="list-style-type: none"> <li>- Ensure Panel junction box, field junction box and proper DC distribution boxes.</li> <li>- Series blocking diodes.</li> <li>- Junction boxes are IP 65 protection standard , made of thermo plastic (dust and water proof).</li> <li>- PCU must be in weather proof locations.</li> </ul>
5.	Earthing	<p>Should conform to IS 3043- 1987</p> <p>For smaller capacity power plants a minimum of two earth pits with proper capping should be there (i) DC Surge Protection, ii) AC side with Inverter. For higher capacity plants from 5 kWp onwards, earthing for structures should also be made separately.</p> <p>It is recommended that the value of any earth system resistance shall not be more than 5.0 ohms</p>
6.	Lightning Arrestor	As per relevant IEC-62305 including separate earthing using specified standard GI strip.
7.	Meters	As per CEA Guidelines
8.	Cables	<ul style="list-style-type: none"> <li>- Confirming to IS 694 and 650 V/1.1 kV grade as per interconnections.</li> <li>- Wires insulated with special grade PVC compound. (Solar grade, making it more resistant to UV exposure)</li> <li>- Wire size to design to minimize losses as per standard MNRE specification</li> <li>- Working voltage : Up to 1100V , T is -15 °C to +80 °C</li> <li>- Color Coding for easy identifications</li> </ul>
9.	Remote monitoring system	<ul style="list-style-type: none"> <li>- Data logger</li> <li>- Communication systems</li> <li>- Power supply kit</li> <li>- Sensors (Solar Radiation, Temperature, Wind speed)</li> </ul>

\*\* The above shall be changed as per the changes in MNRE specification from time to time.