

Key information of Rooftop Solar Phase-II under MPMKVVCL

A) The rate for installation of solar rooftop are as under:

Slab wise offered rate per KW (Rs./KWp)			
> 1kW & <=3kW	>3kW & <=10kW	>10kW & <=100kW	>100kW & <=500kW
37000	39800	36500	34900

B) The above rates are inclusive of Subsidy. The empanelled Vendor shall take balance amount from the consumer after deducting the following total subsidy.

i) For Residential Consumer

Total Capacity	Rate per KW	Applicable Subsidy	Total Subsidy	Amount to be taken from beneficiary (in Rs.)	
1kW	Rs. 37,000/-	@40% for 1kW = Rs. 14,800/-	Rs. 14,800/-	Rs. 22,200/-	
2kW		@40% for 2kW = Rs. 29,600/-	Rs. 29,600/-	Rs. 44,400/-	
3kW		@40% for 3kW = Rs. 44,400/-	Rs. 44,400/-	Rs. 66,600/-	
4kW	Rs. 39,800/-	@40% for 3kW = Rs. 47,760/- @20% for balance 1kW = Rs. 7,960/-	Rs.55,720/-	Rs. 103,480/-	
5kW		@40% for 3kW = Rs. 47,760/- @20% for balance 2kW = Rs. 15,920/-	Rs.63,680/-	Rs. 135,320/-	
6kW		@40% for 3kW = Rs. 47,760/- @20% for balance 3kW = Rs. 23,880/-	Rs. 71,640/-	Rs. 167,160/-	
7kW		@40% for 3kW = Rs. 47,760/- @20% for balance 4kW = Rs. 31,840/-	Rs. 79,600/-	Rs. 199,000/-	
8kW		@40% for 3kW = Rs. 47,760/- @20% for balance 5kW = Rs. 39,800/-	Rs. 87,560/-	Rs. 230,840/-	
9kW		@40% for 3kW = Rs. 47,760/- @20% for balance 6kW = Rs. 47,760/-	Rs. 95,520/-	Rs. 262,680/-	
10kW		@40% for 3kW = Rs. 47,760/- @20% for balance 7kW = Rs. 55,720/-	Rs. 1,03,480/-	Rs. 294,520/-	
All systems above 10kW		The Subsidy will be limited upto 10 KW Capacity i.e. Rs. 1,03,480/- for all systems above 10KW.			Total cost – Rs. 103480/-

ii) For Group Housing Societies (for Common facility)

Group Housing Societies / Residential Welfare Associations (GHS/RWA) for common facilities up to 500kW (@10kWp per house), with upper limit being inclusive of individual rooftop plants already installed by individual residents in that GHS/RWA at the time of installation of RTS for common activity	20% of applicable Slab category
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Details of Area Required and specifications of equipments for Solar Rooftop

- (i) Solar Rooftop System takes nearly 110 Sq.ft of Roof space for 1kW Solar Rooftop System
- (ii) The phase connectivity of SPV projects shall be based on the capacity
 - Up to 3 kW – Single Phase
 - Above 3 kW – Three Phase

Grid Connected Rooftop Solar Photo Voltaic (GCRT) plant consist of following equipments:

Equipment	Description
Solar PV modules	The Solar PV modules and Solar Cells used are Made in India as per DCR requirement of MNRE. Minimum 250Wp Solar Crystalline modules to be used in this project. Performance Warranty of 25 years (more than 80% at the end of 25 year and 90% after 10 years) Quality as per IEC 61215, IEC61701, 61853, 62716, 61730-1,2
Array Structure	Hot Dip Galvanized mounting structure used for mounting of modules/panels/arrays. It will withstand the wind speed as per location in Madhya Pradesh. Suitable fastening arrangement such as grouting and columning shall be provided to secure the installation against specific wind speed. Minimum clearance of the structure from the roof shall be 300mm. Quality as per IS 2062:1992 and IS4759.
Junction Boxes	Made of GRP / FRP / Powder Coated Aluminium /cast aluminium alloy with full dust, water & vermin proof arrangement. It shall have high quality suitable capacity metal oxide varistor / SPDs, suitable reverse blocking diodes. Confirming IP65 and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry.
DC Distribution Board	Enclosure must be dust & vermin proof conform to IP 65 protection. Copper busbars of desired size along with suitable capacity MCB/MCCB to control DC output power to the PCU.
AC Distribution Board	It shall control AC power from PCU/Inverter and should have necessary surge arrestors. All Indoor Panels will have minimum protection of IP54 and outdoor panels of IP65. Quality as per IEC60947, part I, II, III / IS60947 part I, II, III.
PCU / Inverter	Grid Interactive Power Conditioning Unit with Remote Monitoring System shall be capable of complete automatic operation including wakeup, synchronization & shutdown. It is suitable for all voltage ranges or sink of reactive power, internal protection arrangement against any sustainable fault in feeder line and against the lightning on feeder. Conforming IEC 62109-1, 2, 62116, 60255-27, 60068-2, IS61683, etc
Cables	Cables of suitable sizes to be used in the system and should have excellent resistance to heat, cold, water, oil, abrasion, UV radiation. Conforming IEC60227, 60502, IS 694, 1554, BS EN 50618. For AC Cable (PVC/XLPE) and for DC Cable (XLPE/XLPO, Single Core, Multi Stranded), the cable should be Copper and of minimum size of 4 sq.mm. In three phase system, the size of neutral wire shall be equal or half to the size of phase wire.
Protection (Lighting, Surge & Earthing)	Suitable Lighting Arrestors shall be installed to protect against induced high voltages and suitable earthing to route transient faults to earth. Internal Surge Protection shall consist of three SPD type-II surge arrestors connected from +ve and –ve terminals to earth. Each Array structure of the PV should be grounded / earthed properly

Equipment	Description
	inside the array field. Confirming BFC 17-102:2011, IEC 60364-5-53/IS 15086-5, IEC 61643-11:2011

For further details, refer Tender Document for TS 659 of M.P.M.K.V.V.C.L

- C) All the equipments installed shall be as per above technical specifications. But if due to site conditions or any other reason, the beneficiary requires some additional civil work/arrangement/ equipments and the bidder agrees to provide the same, it shall be clearly mentioned in the net metering application. However, the subsidy shall be on the basis of Slab rate of applicable category only.
- D) During the O&M period of 5 years, if the beneficiary does any modification in the building, any expense on relocation of solar plant shall be borne by the beneficiary.
- E) List of Empanelled Vendors under MPMKVVCL for Solar Roof Top Phase-II residential

S. No.	Name of Firm (M/s.)	Name of Contact Person Shri/Ms.	Mobile No.
Category A (Entitled for all Slabs)			
1	M/s Subham Solar Solutions Pvt. Ltd., 83, Bidhan Road, Paul Building Complex, 1st Floor, Siliguri – 734 001 Email:info@subhamsolar.com	Naval Kishore Mishra	9434044959
2	Solar Square Energy Private Limited, E-5/112,Arera Colony,Bhopal-462016 Email : bijan@solarsquare.in,info@solarsquare.in	Anshuman Sharma	8422978848 7208979637
3	S.N. Enterprises S-11 " Thadaram Complex",209-A, Zone-1, M.P. Nagar, Bhopal-462011 (M.P.) Email : snterprises155@gmail.com	Anand Goyal	9826095290
4	Bhaskar Energy System,131/6, Kiran Complex, M.P. Nagar, Zone-II, Bhopal-462011 E-mail : bhaskar_energy@yahoo.co.in	Kapil Khare	0755-4269239 9425096444
5	Xpanz Energy Solutions LLP,314, J O P Plaza, 3rd Floor, Sector- 18, Noida-201 301. E-mail : xpanzsolar@gmail.com	Vishal Choudhary	9999767040 9873326193
6	Starfield Renewables Pvt Ltd., 10/9B, Katra Wazir Khan, Rambagh, Agra-282006 Email : starfieldrenewables@gmail.com	Akshay Chaturvedi /Prashant	9536536363 9557426363
7	Dynamech Electropower Pvt Ltd., 55 & 56-A, Sector - H, Govindpura Industrial Area, Bhopal-462023 Email : dynamechelectropower@gmail.com	Prerit Kapoor A.Gupta Toll free	9806540098 9826026059 18002740282
8	Electromech Devices Mfg. Co. A-09, Mahavir Goushala Complex, K.K. Road, Raipur Email : edmc.rpr@gmail.com	Pankaj Chandak	9893786088
Category B (Entitled for >1 kW & <= 3 kW & >3 kW & <= 10 kW)			
9	Newsol PV Power Pvt. Ltd., Shop No. 2,8-A,Govind Garden ,Raisen Road,Bhopal E-mail: amanvnppv@gmail.com	Aman Verma	9315499703
10	Madhya Pradesh Solar 9,Shop No. 34, Jiwaji University Road, Gwalior 474011 Email : mpsolar9@gmail.com,yashpalsingh@mpsolar9.com	Yashpal Singh	9617780473

S. No.	Name of Firm (M/s.)	Name of Contact Person Shri/Ms.	Mobile No.
11	BhagwatiKrupa Solar Power Private Limited, Plot No. 29, I Floor, Narayana Nagar, Bhopal-462026 Email : csdsthakur@gmail.com	D.S. Thakur	9074660044
12	Blueneba Technologies Private Ltd.,1401, Tower 14, Vipul Greens, Sohna road, Sector 48, Gurgaon 122018. Email : nikhil.shrivastava@blueneba.com	Nikhil Shrivastava	9999277000 9136001991
13	MaaRewa Enterprises,E-2/36, Arera Colony, Bhopal (M.P.) Email:maarevaenterprises2016@gmail.com	Bhaskar Patel	7509809603
14	Autosys,201-202,Sapphire Square, Tower Chouraha Indore-452001 (MP)- Email:info@autosysindore.com,ravindra@autosysindore.com	Ravindra Sharma	9993827008
15	D S A Electrical Construction and Consultancy,46, Archana Tower, C-Sector, Indrapuri, Bhopal Email : dseconsultancy@gmail.com	Deepansh Babbar	8085027741 8109368446
16	Electricitynopproblem,268 Anoop Nagar, Indore-452011 Email : electricitynopproblem@gmail.com	Ajay Porwal	9826971771
17	Brink Constructions,65, Malviya Nagar, Bhopal-462003 Email : brinkcons@gmail.com	Ayush Jain	9039140393 9755990744