



ODISHA RENEWABLE ENERGY DEVELOPMENT AGENCY
Under the Department of Science & Technology
Government of Odisha
(ISO 9001:2008 / ISO 14001:2004)
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Corrigendum to Tender call Notice No.19/OREDA ,dt.07.01.2014

In inviting reference to Detail Tender Document For Rate Contract Notice No. 19/OREDA dated 07.01.2014 which was published on OREDA website on 01.02.2014, it is hereby notified that the Technical Specification for Solar PV Power Plant is revised from Page No. 53 to 61 and the revised specifications are given as under

Chief Executive

Corrigendum to Detail Tender call Notice No.19/OREDA, dt.07.01.2014 published on OREDA website on dt. 01.02.2014.

2 kW SPV Power Plant:

Sr. No	Particulars	Specifications
		2 kW SPV Plant
1	Solar PV Modules	Crystalline Silicon
	a Capacity	2000 W
	b Make	Any MNRE approved OR IEC 61215 (revised)
	c Module	74/100/180/200/220/250/280Wp
	d No. of SPV Modules	Depends on Module wattage
2	Module Mounting Structure	MS hot dip galvanized with thickness of galvanization in between 80 to 120 micron as per the site condition.
3	Power Conditioning Unit	1 No.
	Inverter	2.5 kVA (As per IEC 61683, IEC 60068-2)
	Charge Controller	As per the requirement (IEC 62093, IEC 60068-2)
4	Battery(Lead Acid, tubular positive plate flooded electrolyte or Gel / VRLA Type) (2 Volt, 975 Ah battery must be used)	400 Ah / 48 V
5	Cabling	Min. 20 m
6	Monitoring, Control & protection device	1 Set
7	Metering at generation side	1 No. DC Watt-hour meter with USB port facility.
8	Metering at consumption side	1 No. AC Energy Meter with USB port facility.
9	Spares	Set of required fuses, screws & terminals etc as required.
10	Junction Boxes/Enclosures	IP 65 (for outdoor)/IP 21 (for indoor) IEC 62208
11	GI Pipe Earthing System conforming	As per IS:3043 - 1966
12	Lightning & Over Voltage Protection	System conforming provisions of IS:3070

2.5 kW SPV Power Plant:

Sr. No	Particulars	Specifications
		2.5 kW SPV Plant
1	Solar PV Modules	Crystalline Silicon
	a Capacity	2500W
	b Make	Any MNRE approved OR IEC 61215 (revised)
	c Module	74/100/180/200/220/250/280Wp
	d No. of SPV Modules	Depends on Module wattage
2	Module Mounting Structure	MS hot dip galvanized with thickness of galvanization in between 80 to 120 micron as per the site condition.
3	Power Conditioning Unit	1 No.
	Inverter	3 kVA (As per IEC 61683, IEC 60068-2)
	Charge Controller	As per the requirement (IEC 62093, IEC 60068-2)
4	Battery (Lead Acid, tubular positive plate flooded electrolyte or Gel / VRLA Type) (2 Volt, 600 Ah battery must be used)	500Ah /48V (As per IEC 61427 IS 1651/IS 133369)
5	Cabling	Min. 40 m
6	Monitoring, Control & protection device	1 Set
7	Metering at generation side	1 No. DC Watt-hour meter with USB port facility.
8	Metering at consumption side	1 No. AC Energy Meter with USB port facility.
9	Spares	Set of required fuses, screws & terminals etc as required.
10	Junction Boxes/Enclosures	IP 65 (for outdoor)/IP 21 (for indoor) IEC 62208
11	GI Pipe Earthing System conforming	As per IS:3043 - 1966
12	Lightning & Over Voltage Protection	System conforming provisions of IS:3070

3 KW SPV Power Plant

Sr. No	Particulars	Specifications
		3 kW SPV Plant
1	Solar PV Modules	Crystalline Silicon
	a Capacity	3000 W
	b Make	Any MNRE approved OR IEC 61215 (revised)
	c Module	74/100/180/200/220/250/280Wp
d	No. of SPV Modules	Depends on Module wattage
2	Module Mounting Structure	MS hot dip galvanized with thickness of galvanization in between 80 to 120 micron as per the site condition.
3	Power Conditioning Unit	1 No.
	Inverter	3.75 kVA (As per IEC 61683, IEC 60068-2)
	Charge Controller	As per IEC 62093, IEC 60068-2
4	Battery(Lead Acid, tubular positive plate flooded electrolyte or Gel / VRLA Type) (2 Volt, 750 Ah battery must be used)	600Ah / 48 V
5	Cabling	Min. 20 m
6	Monitoring, Control & protection device	1 Set
7	Metering at generation side	1 No. DC Watt-hour meter with USB port facility.
8	Metering at consumption side	1 No. AC Energy Meter with USB port facility.
9	Spares	Set of required fuses, screws & terminals etc as required.
10	Junction Boxes/Enclosures	IP 65 (for outdoor)/IP 21 (for indoor) IEC 62208
11	GI Pipe Earthing System conforming	As per IS:3043 - 1966
12	Lightning & Over Voltage Protection.	System conforming provisions of IS:3070

4 KW SPV Power Plant

Sr. No	Particulars	Specifications
		4 kW SPV Plant
1	Solar PV Modules	Crystalline Silicon
	a Capacity	4000W
	b Make	Any MNRE approved OR IEC 61215 (revised)
	c Module	74/100/180/200/220/250/280Wp
	d No. of SPV Modules	Depends on Module wattage
2	Module Mounting Structure	MS hot dip galvanized with thickness of galvanization in between 80 to 120 micron as per the site condition.
3	Power Conditioning Unit	1 No.
	Inverter	5 kVA (As per IEC 61683, IEC 60068-2)
	Charge Controller	As per the requirement (IEC 62093, IEC 60068-2)
4	Battery (Lead Acid, tubular positive plate flooded electrolyte or Gel / VRLA Type) (2 Volt, 600 Ah battery must be used)	300Ah /96V (As per IEC 61427 IS 1651/IS 133369)
5	Cabling	Min. 30 m
6	Monitoring, Control & protection device	1 Set
7	Metering at generation side	1 No. DC Watt-hour meter with USB port facility.
8	Metering at consumption side	1 No. AC Energy Meter with USB port facility.
9	Spares	Set of required fuses, screws & terminals etc as required.
10	Junction Boxes/Enclosures	IP 65 (for outdoor)/IP 21 (for indoor) IEC 62208
11	GI Pipe Earthing System conforming	As per IS:3043 - 1966
12	Lightning & Over Voltage Protection	System conforming provisions of IS:3070

5 kW SPV Power Plant:

Sr. No	Particulars	Specifications
1	Solar PV Modules	Crystalline Silicon
	a Capacity	5000W
	b Make	Any MNRE approved OR IEC 61215 (revised)
	c Module	200/220/250/280Wp
	d No. of SPV Modules	Depends on Module wattage
2	Module Mounting Structure	MS hot dip galvanized with thickness of galvanization in between 80 to 120 micron as per the site condition.
3	Power Conditioning Unit	1 No.
	Inverter	7 kVA (As per IEC 61683, IEC 60068-2)
	Charge Controller	As per the requirement (IEC 62093, IEC 60068-2)
4	Battery (Lead Acid, tubular positive plate flooded electrolyte or Gel / VRLA Type) (2 Volt, 600 Ah battery must be used)	400Ah/96V (As per IEC 61427 IS 1651/IS 133369)
5	Cabling	Min. 50 m
6	Monitoring, Control & protection device	1 Set 1 Set
7	Metering at generation side	1 No. DC Watt-hour meter with USB port facility.
8	Metering at consumption side	1 No. AC Energy Meter with USB port facility.
9	Spares	Set of required fuses, screws terminals etc as required.
10	Junction Boxes/Enclosures	IP 65 (for outdoor)/IP 21 (for indoor) IEC 62208
11	GI Pipe Earthing System conforming	As per IS:3043 - 1966
12	Lightning & Over Voltage Protection	System conforming provisions of IS:3070

6 kW SPV Power Plant:

Sr. No	Particulars	Specifications
		6 kW SPV Plant
1	Solar PV Modules	Crystalline Silicon
	a Capacity	6000W
	b Make	Any MNRE approved OR IEC 61215 (revised)
	c Module	74/100/180/200/220/250/280Wp
	d No. of SPV Modules	Depends on Module wattage
2	Module Mounting Structure	MS hot dip galvanized with thickness of galvanization in between 80 to 120 micron as per the site condition.
3	Power Conditioning Unit	1 No.
	Inverter	7.5 kVA (As per IEC 61683, IEC 60068-2)
	Charge Controller	As per the requirement (IEC 62093, IEC 60068-2)
4	Battery (Lead Acid, tubular positive plate flooded electrolyte or Gel / VRLA Type) (2 Volt, 600 Ah battery must be used)	500Ah /96V (As per IEC 61427 IS 1651/IS 133369)
5	Cabling	Min. 40 m
6	Monitoring, Control & protection device	1 Set
7	Metering at generation side	1 No. DC Watt-hour meter with USB port facility.
8	Metering at consumption side	1 No. AC Energy Meter with USB port facility.
9	Spares	Set of required fuses, screws & terminals etc as required.
10	Junction Boxes/Enclosures	IP 65 (for outdoor)/IP 21 (for indoor) IEC 62208
11	GI Pipe Earthing System conforming	As per IS:3043 - 1966
12	Lightning & Over Voltage Protection	System conforming provisions of IS:3070

7 KW SPV Power Plant:

Sr. No	Particulars	Specifications
		7 kW SPV Plant
1	Solar PV Modules	Crystalline Silicon
	a Capacity	7000W
	b Make	Any MNRE approved OR IEC 61215 (revised)
	c Module	74/100/180/200/220/250/280Wp
	d No. of SPV Modules	Depends on Module wattage
2	Module Mounting Structure	MS hot dip galvanized with thickness of galvanization in between 80 to 120 micron as per the site condition.
3	Power Conditioning Unit	1 No.
	Inverter	8.5 kVA (As per IEC 61683, IEC 60068-2)
	Charge Controller	As per the requirement (IEC 62093, IEC 60068-2)
4	Battery (Lead Acid, tubular positive plate flooded electrolyte or Gel / VRLA Type) (2 Volt, 600 Ah battery must be used)	500Ah / 120V (As per IEC 61427 IS 1651/IS 133369)
5	Cabling	Min. 40 m
6	Monitoring, Control & protection device	1 Set
7	Metering at generation side	1 No. DC Watt-hour meter with USB port facility.
8	Metering at consumption side	1 No. AC Energy Meter with USB port facility.
9	Spares	Set of required fuses, screws & terminals etc as required.
10	Junction Boxes/Enclosures	IP 65 (for outdoor)/IP 21 (for indoor) IEC 62208
11	GI Pipe Earthing System conforming	As per IS:3043 - 1966
12	Lightning & Over Voltage Protection	System conforming provisions of IS:3070

8 KW SPV Power Plant:

Sr. No	Particulars	Specifications
8 kW SPV Plant		
1	Solar PV Modules	Crystalline Silicon
	a Capacity	8000W
	b Make	Any MNRE approved OR IEC 61215 (revised)
	c Module	74/100/180/200/220/250/280Wp
	d No. of SPV Modules	Depends on Module wattage
2	Module Mounting Structure	MS hot dip galvanized with thickness of galvanization in between 80 to 120 micron as per the site condition.
3	Power Conditioning Unit	1 No.
	Inverter	8.5 kVA (As per IEC 61683, IEC 60068-2)
	Charge Controller	As per the requirement (IEC 62093, IEC 60068 -2)
4	Battery (Lead Acid, tubular positive plate flooded electrolyte or Gel / VRLA Type) (2 Volt, 300 Ah battery must be used)	600Ah /120V (As per IEC 61427 IS 1651/IS 133369)
5	Cabling	Min. 40 m
6	Monitoring, Control & protection device	1 Set
7	Metering at generation side	1 No. DC Watt-hour meter with USB port facility.
8	Metering at consumption side	1 No. AC Energy Meter with USB port facility.
9	Spares	Set of required fuses, screws & terminals etc as required.
10	Junction Boxes/Enclosures	IP 65 (for outdoor)/IP 21 (for indoor) IEC 62208
11	GI Pipe Earthing System conforming	As per IS:3043 - 1966
12	Lightning & Over Voltage Protection	System conforming provisions of IS:3070

10 kW SPV Power Plant:

Sr. No	Particulars	Specifications
		10 kW SPV Plant
1	Solar PV Modules	Crystalline Silicon
	a Capacity	10000W
	b Make	Any MNRE approved OR IEC 61215 (revised)
	c Module	200/220/250/280Wp
d	No. of SPV Modules	Depends on Module wattage
2	Module Mounting Structure	MS hot dip galvanized with thickness of galvanization in between 80 to 120 micron as per the site condition.
3	Power Conditioning Unit	1 No.
	Inverter	15 kVA (As per IEC 61683, IEC 60068-2)
	Charge Controller	As per the requirement (IEC 62093, IEC 60068-2)
4	Battery (Lead Acid, tubular positive plate flooded electrolyte or Gel / VRLA Type) (2 Volt, 600 Ah battery must be used)	700Ah /120V (As per IEC 61427 IS 1651/IS 133369)
5	Cabling	Min. 50 m
6	Monitoring, Control & protection device	1 Set
7	Metering at generation side	1 No. DC Watt-hour meter with USB port facility.
8	Metering at consumption side	1 No. AC Energy Meter with USB port facility.
9	Spares	Set of required fuses, screws & terminals etc as required.
10	Junction Boxes/Enclosures	IP 65 (for outdoor)/IP 21 (for indoor) IEC 62208
11	GI Pipe Earthing System conforming	As per IS:3043 - 1966
12	Lightning & Over Voltage Protection	System conforming provisions of IS:3070

N.B. an open source software & hardware system to monitor, manage, and maintain remotely from any hand held device or standard PC. It should communicate with any standard certificate smart meter/ meters with RS-232/485 as per international communication standard SGIP in real time. This should integrate functionalities of SCADA, GIS and WSN protocols as well.

The system should be able to schedule and independently gather data from any standard smart grid standards. This can be from the standard interval of 15 seconds to daily, weekly, basis depending on node application type. It can be used to dynamically to control demand and supply. It should be able to be used for security and surveillance via IP camera for security. The data set can be stored on the cloud or on a local server can be synced.