

Check List for Stage-3 (Pre-site Visit)

Check list of documents to be submitted by Consumer			
S. No.	DOCUMENTS	REQUIRED	SUBMITTED
1	Project completion report.(PCR)	Yes	
2	Photograph of Installed Solar Plant with geo coordinates.	Yes	
Check list of documents to be submitted by installer			
1	Detailed list of components to be used in Renewable Energy System along with Solar plant installation certificate.	Yes	
2	Undertaking for DCR content	Yes	
3	Electrical Inspector certificate	Above 500KWp plants	

Project Completion Report for Grid-Connected Rooftop

Financial year:			
Sanction Letter No. :			
Proposal Title :			
Installed by agency :			
Title of the Project:		SPV Capacity (kWp):	
Category of the organization/ beneficiary:		Name of the contact person:	
Address of contact person:			
State:		District/ City:	
Mobile:		Email:	
Aadhaar Card Number (For Residential)		Latitude:	
		Longitude:	
DISCOM		Sanction Load	
CA No.			

Technology Description & System Design /Specification			
(Compliance to BIS/ IEC Standards is mandatory)			
1. Solar PV Module:			
Power of each PV Module / Nos.(Wp)* / Make			
Cumulative Capacity of Modules(kWp):			
Solar cell technology:		Tilt Angle of Modules:	
Module efficiency (in %) :		Azimuth	
Indigenous or imported (Cell)		RFID passed inside or outside:	
Indigenous or imported (Module)		* Supported by Appropriate documentation	

2. Inverters:			
Type of inverter :			
Power of each PCU/Nos. of inverters (KVA)* /Make			
Capacity / Power of PCU / inverters (KVA) :		Type of Charge Controller /MPPT	
Inverter efficiency (in %)			
Grid connectivity level phase	Single Phase/ Three Phase	Grid connectivity level Voltage	220 V/ 415 V
3. Mounting Structures			
Type		Surface Finish	
Material		Wind Speed Tolerance	
4. Cables:			
DC Cable Make		Size	
AC Cable Make (Inverter to ACDB)		Size	
AC Cable Make (ACDB to Electric Panel)		Size	
Conductor		Insulation/sheath	PVC / XLPE
5. JUNCTION BOX & DISTRIBUTION BOARDS			
ACDB		Nos.	
DCDB		Nos.	
6. EARTHING & LIGHTNING PROTECTION			
EQUIPMENT EARTHING			
AC (Nos.)		Earth Resistance	
DC (Nos.)		Earth Resistance	
LIGHTNING ARRESTORS (LA)			
Type			
LA (Nos.)		Earth Resistance	

7. Online Monitoring Mechanism:			
Web Portal :			
USER ID : Password:			
8. Weather monitoring:			
Solar Irradiance (Pyranometer - Class IIInd or better)	Temperature	Ambient & Module	
Wind speed sensor			
9. Fire Fighting Device / System			
10. Danger Board			

Date:.....

(Signature of Vendor With Stamp)

Annex:

1. Copy of System test & Earth test reports(annexed)

Solar Plant Installation Certificate

All Pages to be Printed on Letter Head of Installer and signed by installer with stamp & consumer with stamp (if applicable)

Solar Plant Installation Certificate

Registered Consumer Name			
Address			
BRPL CA Number		Net Metering Application No.	
BRPL Sanctioned Load		Solar Capacity	
BRPL Supply Voltage		Solar Plant Connecting Voltage	
Consumer Mobile No.		Solar Plant Installation Date	
Consumer Email ID		Warranty Period	
Installer Email ID		Installer Mobile No.	
Total Cost of solar plant Installation (Rs.)		Financial model (CAPEX/ RESCO)	

The system has been installed with equivalent standards which correspond to the required technical & interconnectivity specifications as per Annexure III (important clauses related to the technical & interconnection requirements) of Guidelines under DERC (Net Metering for Renewable Energy) Regulations, 2014 as under:

Parameter	Reference	Requirement	Installer Remarks
Overall conditions of Service	State Distribution/ Supply Code	Reference to State Distribution Code	
Overall Grid Standards	Central Electricity Authority (Grid Standard) Regulations 2010	Reference to regulations	
Equipment	BIS / IEC / IEEE	Reference to standards	
Meters	Central Electricity authority (Installation & operation of meters) Regulation 2006	Reference to regulations and additional conditions issued by the Commission.	

Safety and Supply	Central Electricity Authority (Measures of Safety & Electricity Supply) Regulations, 2010	Reference to regulations	
Harmonic Current	IEEE 519 CEA (Technical Standards for connectivity of the DG Resources) Regulations, 2013	Harmonic current injections from a generating station shall not exceed the limits specified in IEEE 519	
Synchronization	IEEE 519 CEA (Technical Standards for connectivity of the DG Resources) Regulations, 2013	Renewable Energy System must be equipped with a grid frequency Synchronization device. Every time the generating station is synchronized to the electricity system. It shall not cause voltage fluctuation greater than +/- 5% at point of connection.	
Voltage	IEEE 519 CEA (Technical Standards for connectivity of the DG Resources) Regulations, 2013	The voltage-operating window should minimize nuisance tripping and should be under operating range of 80% to 110% of the nominal connected voltage. Beyond a clearing time of 2 second, the Renewable Energy system must isolate itself from the grid.	
Flicker	IEEE 519 CEA (Technical Standards for connectivity of the DG Resources) Regulations, 2013	Operation of Renewable Energy System should not cause voltage flicker in excess of the limits stated in IEC 61000 standards or other Equivalent Indian standards, if any.	
Frequency	IEEE 519 CEA (Technical Standards for connectivity of the DG Resources) Regulations, 2013	When the Distribution system frequency deviates outside the specified conditions (50.5 Hz on upper side and 47.5 Hz on lower side), There should be over and under frequency trip functions with a clearing time of 0.2 seconds.	

DC Injection	IEEE 519 CEA (Technical Standards for connectivity of the DG Resources) Regulations, 2013	Renewable Energy System should not inject DC power more than 0.5% of full rated output at the interconnection point or 1% of rated inverter output current into distribution system under any operating conditions.	
Power Factor	IEEE 519 CEA (Technical Standards for connectivity of the DG Resources) Regulations, 2013	While the output of the inverter is greater than 50%, a lagging power factor of > 0.9 operates.	
Islanding and Disconnection	IEEE 519 CEA (Technical Standards for connectivity of the DG Resources) Regulations, 2013	The Renewable Energy System in the event of fault, voltage or frequency variations must island/disconnect itself within IEC standard on stipulated period.	
Overload and Overheat	IEEE 519 CEA (Technical Standards for connectivity of the DG Resources) Regulations, 2013	Inverter has the facility to automatically switch off in case of overload or overheating and restarts when normal conditions are restored.	
Paralleling Device	IEEE 519 CEA (Technical Standards for connectivity of the DG Resources) Regulations, 2013	Paralleling device of Renewable Energy System is capable of withstanding 220% of the normal voltage at interconnection point.	

The system has been installed and tested for grid stability, grid protection and specified environmental influences and is found to have equivalent standards which correspond to the required technical & interconnectivity specifications as per Annexure III (important clauses related to the technical & interconnection requirements) of **Guidelines under DERC (Net Metering for Renewable Energy) Regulations, 2014** as under:

**Solar Installer Name,
Signature with stamp**

**Consumer Name, Signature
with stamp (if applicable)**

Detail list of components to be used in Renewable Energy System

CANo: _____, Sanction Load _____ KW, Contact No. of Consumer: _____

Address: _____

Company name of installer: _____ Contact No. of installer: _____

Details of Solar Capacity:- Existing : _____ KW, Proposed : _____ KW, Total: _____ KW

Sr. No.	Name of equipment	Make	Model No.	Serial No.	Capacity/ Size	Quantity	Standards / Certification	Attachments
1	Solar Inverter							
2	Solar PV modules							
3	Structure							
4	Solar cable							
5	AC cables							
6	Switches/ Circuit Breakers/ Connectors							
7	Earthing							
8	Connector & Conduits							
9	Junction Boxes/ Enclosures for Charge Controllers/ Luminaries							
10	LA							
11	Data logger							

I(Name of Consumer) shall comply with the terms and condition of Model Connection Agreement.

Signature of Installer with stamp

Signature of Consumer