Ministry of New and Renewable Energy

Jawaharlal Nehru National Solar Mission
(Off-grid and Decentralized Solar Applications)

Format for Submitting Project Proposals for installing
Standalone SPV power plant of maximum capacity 100 kWp

PART-A: General Details of the Project

1. Title of the Project :

Total SPV Capacity (kWp):

2. Name of the Project Proponent :

Name, Designation and Address of the Authorized Representative
for correspondence with telephone No. Fax & Email (Web site, if any) :

Category of Project Proponent :

a) Renewable Energy Service Providing Company (RESCO)
b) Financial Institutions (Banks, NBFCs, MFIs)
c) Financial Integrator
d) System Integrator
e) Program Administrator

3. **Executive Summary of the Proposal**

4. Benefits of the project (electricity to households, buildings, other utilities, diesel savings/ others, if any)

PART-B: Details of the Project

1. **Details of Project site:** (State, District/ City, Block, Panchayat, Village/ Hamlet and accessibility to site)

2. Details of Project Beneficiary/ organization

Head of the organization, Name of the contact person with full address, phone, mobile and e-mail

3. Details of Proposed Power Plant

i. Proposed capacity of the SPV Power Plant (kWp)
ii. Availability of shadow free south facing land area for the power plant with photograph
iii. Details of loads to be energized by Power Plant (kW)
iv. Calculations and justification for the proposed capacity (Please elaborate)
v. Expected annual energy generation
vi. Building for housing the battery bank and plant control systems

4. Details of electrical load where the Plant is to be installed

i. Total Electrical load (kW)
ii. Total electrical load to be met by the SPV power plant (kW)
iii. Lighting/ fans/ computers (nos and capacity)
iv. Water Pumping load (drinking/ irrigation water supply), if any
v. Other appliances
(Time duration for supply of power for each category of load and Load management details should be provided)
vi. Any other load

5. Technology Description & System Design /Specification

i. Line diagram of the complete System with details
ii. Capacity/ Power of each PV Module (kWp)
iii. Number of modules and total array capacity (nos. & kWp)
iv. Solar cell technology and Module efficiency proposed to be used
v. Details of Tracking of PV Array (if proposed)
vi. Designed peak power of PV power plant/project (kWp)
(Please provide design details to justify the capacity of the plant to meet the proposed loads)
vii. PCU/inverter capacity with detailed specifications (kVA)
(Details of quality of output power)
viii. Number of PCU/inverters proposed to be used
ix. DC Bus voltage
x. Capacity of battery bank (Current, Voltage and kWhr)
xi. Type of battery proposed

xii. Operational limits of the system
xiii. Details of protections to be deployed on PV array and AC output side
xiv. Details of Metering, Indication, Data logging operation
xv. Pre-paid meters to be used, if any.
xvi. Schematic diagram of the system including protecting interlocking devices, monitoring and data logging points to be provided.
xvii. Details of training of manpower to be provided for successful operation of the plant.

(Compliance to BIS/IEC Standards is mandatory).

6. Details of Building to install the Battery Bank, Electronics And Control Panel

i. Whether any existing building is to be used as control room, if so, details to be provided.
ii. If a new building is to be constructed, area, estimated cost and layout, etc to be provided and time frame to construct the building.

Notes:

- It is mandatory to provide technical performance specifications of each component of the power plant proposed to be installed under the project and for which the performance will be warranted.
- All technical parameters and warranty requirements must meet or exceed the requirements mentioned in the guidelines issued by the Ministry.

PART C: Operation and Maintenance Arrangements

- Details of Operation and Maintenance Arrangements.
- Arrangements for Generation Data Collection through remote monitoring (applicable for SPV Power Plants having more than 10 KWp capacity).
- Is dedicated staff being trained for O&M of the plant?
- No. of personnel to be trained in O&M

PART D: Project Duration and Implementation Schedule

- completion schedule with milestones

PART E: Monitoring Mechanism:

- Details of Data Monitoring on Daily, Monthly and Annual energy generation (Data logging and compilation and sharing with MNRE)

Please provide details in the following format

Own Mechanism (up to 10 kWp)	
Third Party	
Remote Monitoring (for SPV power plants of 10 kWp and above)	

PART F: Technical details of the Project

For standalone SPV power plants upto 100 kWp capacity

S. No.	State District	Name of the beneficiary organization with contact person and Postal Address, phone/mobile no. and email	Total electrical Load in kWhr.	Total electrical load to be met by SPV power plant kWhr	PV array Capacity of the System (Wp)	Type and capacity of Battery (V &Ah)	Inverter capacity (VA)
Total							

PART G: Break up Project Hardware Cost :

S. No.	SPV Power Plant capacity (kWp)	Cost in Rupees					
		Module	Battery	Inverter	Structures	Balance of System	Total

Costing of Project.

S. No.	Systems	Unit Cost (Rs.)	Quantity (No.)	Total Cost (Rs. in Lakh)
1.	Cost of Systems Hardware			
2.	Cost of transportation and insurance			
3.	Cost of civil works and electrical works			
4.	Cost of installation and commissioning			
5.	Cost of Annual Maintenance for 5 years			
6.	Cost of Battery replacement			
7.	Any other related costs			
	Total Cost			

Means of Finance

1.	Envisaged Central Financial Assistance from MNRE	Rs.
2.	Contribution of Beneficiaries	Rs.
3.	Contribution of Project Proponent	Rs.
4.	Other Source (s) of Funding	Rs.
5.	Envisaged Soft Loan assistance, if any	Rs.
	Details of Revenue to be collected with payback period	

PART H: ANY OTHER INFORMATION

Declaration and Certificate (To be furnished by Implementing Agency)

1. It is certified that I/we have read the guidelines issued by the Ministry vide 5/23/2009/P&C dated 16th June, 2010 and the related provisions/terms and conditions for availing central financial assistance (CFA) from the Ministry of New and Renewable Energy and I agree to abide by these guidelines and related terms and conditions.
2. It is to confirm that the present proposal in full or part has not been submitted / has been submitted to any other agency for seeking support (In case proposal has been submitted to any other agency or under consideration all details and a copy of the proposal must be submitted along with the present proposal).
3. This is to certify that the various components of the SPV systems/ power pack/ plant/ pump will conform to the Relevant Standards, as mentioned in the Guidelines for Off-grid and Decentralized Solar Applications (Annexure-3) for SPV modules and components under JNNSM. Copies of the Relevant IEC/ BIS Certificates should be enclosed.
4. Failure to comply with these guidelines will result in denial of CFA by the Ministry.
5. I agree to put photograph of the system and beneficiary on my website for all systems above 1 kW.

It is to confirm that in case of any dispute, the decision of Secretary, Ministry of New and Renewable Energy, Government of India will be final and binding on all.

Signature _____

Name & Designation of Authorized Signatory* of Implementing Agency

Place:
Date:

*Authorized signatory should be in the rank of General Manager of SNA/PSU or MD/CEO/Director in case of Channel Partner.

CERTIFICATE
(To be furnished by SNA/PSU/Channel Partner)
(Only for Solar Pump, Power Pack/ Power Plant)

This is to certify that Shri…….. (name & designation) of……. (organization) visited the proposed site on (date) … and found that there is …….sqm. of south facing shadow free area is available at the site for installation of the solar pump/ power pack/ power plant. The latest Photograph of the front view of the proposed site with date is enclosed with the certificate. After installation photograph will be taken in same view and will be submitted with completion report.

Signature _____
Name & Designation
of Authorized Signatory*
of SNA/PSU/Channel Partner

Place:
Date:

* Authorized signatory should be in the rank of General Manager of SNA/PSU or MD/CEO/Director in case of Channel Partner.