

F.No.322/8/2019-NSM

भारत सरकार / Government of India

नवीन और नवीकरणीय ऊर्जा मंत्रालय/ Ministry of New & Renewable Energy (MNRE)
National Solar Mission Division

Block No. 14, C.G.O. Complex,
Lodi Road, New Delhi - 110003
Dated: 19th May, 2020

To,
The Pay and Accounts Officer,
Ministry of New and Renewable Energy,
Pt. Deen Dayal Antyodaya Bhavan,
CGO Complex,
Lodhi Road, New Delhi - 110 003.

Subject: Scheme for "Installation of grid connected solar project & various off-grid applications for 100% Solarization of Konark Sun temple & Konark town"

Sir/Madam,

I am directed to convey the sanction of President for undertaking a Scheme for 100 % Solarisation of Konark sun-temple & Konark town, Odisha, as per the provisions given in Scheme Guidelines at Annexure.

2. Objective:

The objective of this scheme is the 100 % solarisation of Konark sun-temple & Konark town through installation of 10 MW grid connected solar project and various off-grid solar projects so that electricity needs of all the households of Konark city and Konark temple are fully fulfilled with solar energy.

3. Proposed solar installation and their costs and funding

The Scheme envisages 100 % solarisation of Konark temple & Konark town through setting up of the 10 MW grid connected solar project and various off-grid solar applications, with Central Financial Assistance of around Rs.25 crores from Government of India through MNRE.

a) Grid connected 10 MW Solar PV Project:

Item	VGF amount	Unit proposed	Total CFA required
10 MW grid connected Solar PV project	Rs 1.0 Cr/MW	10 MW	Rs 10.0 Cr *

* Maximum, however, actual amount will be discovered through competitive bidding on VGF

b) Various off-grid applications: Various off-grid applications are proposed to be set up with 100% CFA support. The details of CFA proposed under the scheme are as under:

Items (as per specifications mentioned in DPR submitted by OREDA)	Unit proposed	Project Cost (INR)
Design , Supply, Installation, Commissioning and 5 years, maintenance of Solar Trees of 1 KW Capacity for installation alongside the two approach roads of Konark for powering 4 Nos of street lights	50	4,40,00,000
Design , Supply, Installation, Commissioning and 5 years, maintenance of streetlights along with wires and cabling for illumination of the two approach roads of Konark	200	2,20,00,000
Design and Supply of E- Rickshaws	20	44,00,000
Design, Supply, installation, Commissioning and 5 years Maintenance of Charging stations for E-Rickshaws	2	13,20,000
Design, Supply, installation, Commissioning and 5 years maintenance of Solar Drinking Water Kiosks	40	1,76,00,000
Design, Supply, installation, commissioning and maintenance of 250 KWp Off- grid Solar Power Plant for illumination of Vending Zones and beach area	1	3,65,97,000
Design, Supply, installation, commissioning and maintenance of 50 KWp Off- grid Solar Power Plant for illumination of Sun Temple	1	73,19,400
Sub Total		13,32,36,400
Miscellaneous and Unforeseen Expenses @10% of above		1,33,23,640
Total		14,65,60,040

OREDA will be free to change the numbers of various items and also delete/add any items within the stipulated budget, if necessary, in consultation with MNRE.

4. Monitoring and Evaluation:

The scheme would be implemented by the Odisha Renewable Energy Development Agency (OREDA). OREDA would be responsible for selection of project developers through competitive bidding process, monitor the implementation of the projects, ensure compliance with MNRE's Scheme and submit monthly progress reports to MNRE.

OREDA would submit a third party evaluation report for the systems installed under off-grid applications of this Scheme after one year from the date of completion of the projects, to this Ministry. The third party evaluation may be carried through any Govt Institutions/Govt Universities. The expenditure toward third party evaluation shall be made from the CFA under the head Miscellaneous & Unforeseen expenses.

5. The estimated Central Financial Assistance (CFA) for entire project is around Rs 25 Cr. However, CFA will be released on actual project cost arrived through competitive bidding process. The entire CFA will be borne by MNRE. In case the total project cost exceeds the sanctioned budget, the no. of projects to be awarded may be decided based on budget availability. Necessary funds for

25 Cr

implementation of this Scheme during 2020-21 and subsequent years will be drawn from the following budget head:

a. For 10 MW grid connected solar project: For creation of capital assets of grid interactive solar project:

Demand no. 69, Major Head: 2810 - New and Renewable Energy, Sub Major Head: 00, Minor Head: 101 - Grid Interactive and Distributed Renewable Power, Sub-Head: 01 - Grid Interactive Power, Detailed Head: 04 - Solar power, Object Head: 35 Grant for creation of capital assets.

b. For various off-grid solar applications: For creation of capital assets of off-grid solar application

Demand No. 70, Major Head :2810 New and Renewable Energy, Sub Major Head: 00, Minor Head :101-Grid Interactive and Distributed Renewable Power, Sub Head: 02-Off Grid/ Distributed and Decentralized Renewable Power, Detailed Head: 04 Solar Power, Object Head :35- Grants for creation of Capital Assets during the year 2020-21.

6. This sanction issues in exercise of powers delegated to this Ministry and with the concurrence of IFD dated 18-05-2020 vide their Dy. No. 53 dated 18-05-2020.

Yours faithfully,

Sunil

(Sunil Kr Gupta)

Scientist-D/NSM Division

Copy for information and necessary action to:

1. All Central Government Ministries and Departments;
2. NITI Aayog, Sansad Marg, Sansad Marg Area, New Delhi.
3. Archaeological Survey of India (ASI), Dharohar Bhawan, 24, Tilak Marg, New Delhi.
4. Principal Director of Audit, Scientific Audit-II, DGACR Building, I.P. Estate, Delhi – 110002.
5. Director General (Local Bodies), Office of the Comptroller & Auditor General, 9-Deendayal Upadhyay Marg, New Delhi
6. Power Department, Government of Odisha,
7. CMD, Grid Corporation of Orissa Ltd, Janpath, Bhubaneswar-751022
8. Chief Executive, OREDA, S-59, Mancheswar Industrial Estate, Bhubaneswar-751010

Internal Distribution:

1. PS to Hon'ble Minister of State (I/C) for New & Renewable Energy, Power and MoS for Skill Development and Entrepreneurship
2. Sr. PPS to Secretary, MNRE
3. All Advisers and Group Heads/JS (AKS)/JS (BPY) /JS (DDJ)/ JS&FA/ Eco. Adviser
4. NIC, MNRE for uploading on Ministry's website
5. CA, MNRE / Cash Section
6. Hindi Section for Hindi version
7. Sanction Folder

Yours faithfully,

Sunil

(Sunil Kr Gupta)

Scientist-D/NSM Division

F.No.322/8/2019-NSM

भारत सरकार / Government of India

नवीन और नवीकरणीय ऊर्जा मंत्रालय/ Ministry of New & Renewable Energy (MNRE)

National Solar Mission Division

Guidelines for Scheme for 100 % solarisation of Konark sun-temple & Konark town, Odisha**1. Introduction**

Ministry of New & Renewable Energy, Government of India hereby announces the implementation of the Scheme for 100 % solarisation of Konark sun-temple & Konark town, Odisha, which shall be governed by these Guidelines. Konark has been selected due to the location of ancient sun-temple there and the associated historical and cultural association with Sun. The context makes it an ideal location for a demonstration programme for a town running completely through solar energy. The Scheme proposes 100 % CFA of around Rs. 25 Crore. The scheme will be valid upto March 2021.

2. Aim & Objective

2.1 Aim: 100 % Solarisation of Konark sun-temple & Konark town, Odisha

2.2 Objective: The objective of this scheme is the 100 % solarisation of Konark sun-temple & Konark town through installation of grid connected and off-grid solar projects so that electricity needs of all the households of Konark city and Konark temple are fully fulfilled with solar energy.

3. Proposed installation of solar project and their costs and funding

The Scheme envisages 100 % solarisation of Konark temple & Konark town through setting up of the 10 MW grid connected solar project and various off-grid solar applications, with central financial assistance of around Rs.25 crores from Government of India through MNRE.

a) Grid connected 10 MW Solar PV Project:

Item	VGF amount	Unit proposed	Total CFA required
10 MW grid connected Solar PV projects	Rs 1.0 Cr/MW	10 MW	Rs 10.0 Cr *

* Maximum, however, actual amount will be discovered through competitive bidding on VGF

b) Various off-grid applications:

Various off-grid applications are proposed to be set up with 100% CFA. The details of CFA proposed under the scheme are as under:

Components of off-grid solar applications (as per specifications mentioned in DPR submitted by OREDA)	Unit proposed	Project Cost (INR)
Design , Supply, Installation, Commissioning and 5 years, maintenance of SolarTrees of 1 KW Capacity for installation alongside the two approach roads of Konark for powering 4 Nos of street lights	50	4,40,00,000
Design , Supply, Installation, Commissioning and 5 years, maintenance of streetlights along with wires and cabling for illumination of the two approach roads of Konark	200	2,20,00,000

Design and Supply of E- Rickshaws	20	44,00,000
Design, Supply, installation, Commissioning and 5 years Maintenance of Charging stations for E-Rickshaws	2	13,20,000
Design, Supply, installation, Commissioning and 5 years maintenance of Solar Drinking Water Kiosks	40	1,76,00,000
Design, Supply, installation, commissioning and maintenance of 250 KWp Off- grid Solar Power Plant for illumination of Vending Zones and beach area	1	3,65,97,000
Design, Supply, installation, commissioning and maintenance of 50 KWp Off- grid Solar Power Plant for illumination of Sun Temple	1	73,19,400
Sub Total		13,32,36,400
Miscellaneous and Unforeseen Expenses @10% of above		1,33,23,640
Total		14,65,60,040

However, OREDA will be free to change the numbers of various items and also delete/add any items within the stipulated budget, if necessary, in consultation with MNRE.

4. Scheme Implementing Agency:

The scheme would be implemented by the Odisha Renewable Energy Development Agency (OREDA). OREDA will be responsible for the following activities:

- i) Selection of project developers through competitive bidding process,
- ii) Monitor the implementation of the projects,
- iii) Inspection of installed systems and submission of completion reports to MNRE.
- iv) Disbursement of MNRE CFA and submission of utilization certificates and audited statement of expenditure through EAT module.
- v) Submission of monthly and quarterly progress reports.
- vi) Ensure project completion within the given timelines and compliance of MNRE Guidelines and Standards
- vii) Ensure compliance of AMC
- viii) Responsible for maintenance/upkeep of the all off-grid components beyond the AMC period of 5 years
- ix) Any other activity to ensure successful implementation of the programme.

5. Methodology of Implementation/ Scheme Modalities

5.1 The Scheme Implementing Agency will issue a two tenders for selection of project developers for implementing the 10 MW grid connected solar project and various off-grid applications as mentioned in para (3) above. The project developers for both parts (grid connected & off-grid solar applications) will be selected through competitive bidding process.

5.2 10 MW grid connected solar project:

i) The grid connected 10 MW project will be established in developer mode with Viability Gap Funding (VGF) to bring the tariff at present APPC rate. This rate will be applicable for the entire life of the Project. Developer will be selected through a transparent bidding process on Viability Gap Funding (VGF) required by the Bidders to enable them to supply the solar power to GRIDCO at a fixed tariff for 25 years. The tariff may be fixed at present APPC rate of Odisha

ie. Rs 2.77 /unit. The successful project developer will sign the Power Purchase Agreement (PPA) with GRIDCO for 25 years.

ii) This Ministry will provide one time VGF support with maximum ceiling of Rs 1.0 Cr/MW keeping the solar tariff fixed at Rs 2.77/unit. However, actual CFA would be released based on actual VGF discovered through competitive bidding process.

iii) OREDA will follow the Guidelines of the Scheme for implementation of setting up of over 5000 MW Grid-Connected Solar PV Power Projects with Viability Gap Funding (VGF) under Batch-IV of Phase-II of the NSM of this Ministry.

iv) OREDA may take necessary help from Solar Energy Corporation of India Ltd (SECI), if required, for bringing out the tender documents of 10 MW grid connected solar projects based on VGF pattern.

5.3 Various off-grid applications:

i) The bidding for various off-grid applications as mentioned in para 3(b) will be on the combined project cost for implementing these various off-grid solar installations and maintaining them for 5 years by the Scheme Implementing Agency. The developer will be selected through complete bidding process. The bidder will have to quote individual cost components (including operation and maintenance for a 5 year periods) for all the components proposed under various off-grid applications, as well as the total project cost. The bidder who has submitted the lowest total project cost will be selected as the successful bidder.

iii) The successful bidder will be responsible for implementation of all various off-grid applications, within a period as specified by the Scheme Implementing Agency in the tender.

iv) The project developer will mandatorily provide AMC for a period of 5 years from the date of commissioning of the systems. AMC will include submission of quarterly joint inspection report of the installation by the implementing agency and project developer. After AMC period of 5 years, OREDA will responsible for maintenance of the all solar off-grid components.

v) The required land for installation of various off-grid solar applications will be identified and provided to project developer by OREDA in consultation with District Administration/Works department, Govt. of Odisha.

vi) OREDA may free to change the numbers of various items under off-grid applications, if necessary, in consultation with MNRE and also delete/add any items within the stipulated budget.

5.4 For the proposed various solar installations to be undertaken, Guidelines of national Monument Authority (NMA) regarding construction and installation of equipment may be followed and necessary permission/approval may be taken before starting the project.

5.5 All mandatory approvals/ clearances in respect of the proposed solar installations are to be obtained by the project developer for this purpose.

5.6 Projects installed under this Scheme should meet technical specification and construction standards as specified by BIS and MNRE from time to time. Noncompliance will be taken seriously to the extent of blacklisting of the vendor, in the same manner as specified in Clause 9 below, apart from taking action under any other law in force.

5.7 Delay in installation & commissioning will attract penalty as will be detailed in the RfS to be issued by OREDA.

6. Release of funds

Eligible Central Financial Assistance (CFA) would be released to OREDA by this Ministry. After due diligence and upon fulfilment of terms and condition of the Scheme, OREDA will disburse the CFA to successful project developers.

6.1 CFA for 10 MW grid connected Solar Project:

- a) MNRE will provide 100% VGF to OREDA for further disbursement to project developer after commissioning of the project.
- b) OREDA will release 100% VGF on Commissioning of the full project capacity to the developer for which OREDA will obtain Bank Guarantee (BG) for 20% of the VGF amount, which will be reduced by 5% each year and fully returned in four years. OREDA will have the right to encash the BG, if the developer fails to operate the plant or produce power or the plant is left idle for any reason for over one year and the project doesn't meet the generation criteria as per VGF Guideline of this Ministry, mentioned at para 5.2(iii) above.

6.2 CFA for Off-grid applications:

- a) MNRE will release 100 % CFA to OREDA for further disbursement to project Developers after successful completion of the projects.
- b) In case due to unavoidable circumstances, if some of the off-grid applications which were to be implemented by the successful bidder, could not get implemented, then the CFA to be proportionately reduced on the basis of the individual cost components, submitted by the successful bidder at the time of bidding.
- c) OREDA will release the CFA to project developer on successful completion of the projects. However before releasing the CFA, OREDA may obtain Bank Guarantee (BG) equivalent to 50 % of the cost of system installed by project developer valid for 5 years.
- d) OREDA will have the right to encash the BG of the value equal to cost of the non – functioning of component, if it fails to operate for over one month continuously. Upon satisfactory operation & maintenance of the projects, OREDA will discharge the BG after deduction of encashment, if any, to project developer at the end of 5th year.

7. **Implementation Schedule:**

The duration of the Scheme is upto 31st March, 2021. Further, the need for extension of the same can be considered as and when the need arises.

8. **Year-wise estimation of physical achievements and financial requirements (CFA)**

The Scheme will be valid upto 31st March 2021. Expected year-wise estimated physical achievements and financial requirements, are as under:

4 th Quarter of FY 2020-21		FY 2021-22		Total	
Estimated Physical Achievement	Estimated CFA Requirement (Cr. Rs.)	Estimated Physical Achievement	Estimated CFA Requirement (Cr. Rs.)	Total Estimated CFA Requirement (Cr. Rs.)	
All components of off-grid applications	15	Commissioning of 10 MW grid connected solar projects	10	25	

Above timelines are tentative and may vary in case there are variations in actual timelines for award of project/ commissioning of project.

9. **Monitoring and Evaluation**

9.1 OREDA will issue the tenders for setting up of proposed solar energy installations, monitor the implementation of the projects, ensure compliance with MNRE's Scheme and submit monthly progress reports to MNRE.

9.2 OREDA will be the nodal agency for implementation of this Scheme, and will develop a suitable monitoring mechanism, conduct review meetings, conduct studies to analyse the performance of the projects, carry out random checks to verify compliance of quality standards. No separate funding shall be provided by MNRE to OREDA for these activities.

9.3 OREDA would submit a third party evaluation report for the systems installed under off-grid applications of this Scheme after one year from the date of completion of the projects, to this Ministry. The third party evaluation may be carried through any Govt Institutions/Govt Universities. The expenditure toward third party evaluation shall be made from the CFA under the head Miscellaneous & Unforeseen expenses.

9.4 The Ministry officials or designated agency may inspect the ongoing installation or installed plants. In case the installed systems are not as per standards, non-functional on account of poor quality of installation, or non-compliance of AMC, the Ministry reserves the right to blacklist the vendor. Blacklisting may inter-alia includes the following:

- The Vendor/Firm will not be eligible to participate in tenders for Government supported projects.
- In case, the concerned Director(s) of the firm/company joins another existing or starts/ joins a new firm/company, the company will automatically be blacklisted.

10. Power to interpret /amend/ removes difficulties

In case of any ambiguity in interpretation of any of the provisions of these guidelines, the decision of the Ministry of New & Renewable Energy (MNRE) shall be final. If there is need for any amendment to the Scheme for better implementation or any relaxation is required in the norms due to operational problems, MNRE will be competent to make such amendments with the approval of Secretary, MNRE without increasing the financial requirements.
