

4. Necessary funds for implementation of this Scheme during 2019-20 and subsequent years will be drawn from the following budget head:

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 Head0 : 35 Grant for creation of capital assets.

5. This sanction issues in exercise of powers delegated to this Ministry and with the concurrence of IFD dated 06.03.2020 vide their Dy. No. 569 dated 18.03.2020.

Yours faithfully,



(Sanjay G. Karndhar)
Scientist-D

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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), Dharmohar 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. Energy & Petrochemicals Department, Government of Gujarat, Sachivalaya, Gandhinagar, Gujarat.
7. Gujarat Urja Vikas Nigam Limited (GUVNL), Sardar Patel Vidyut Bhavan, Race Course, Vadodara, Gujarat.
8. Gujarat Power Corporation Limited (GPCL), Block No. 8, Sixth Floor, Udyog Bhavan, Sector 11, Gandhinagar, Gujarat
9. Gujarat Energy Development Agency (GEDA), 4th floor, Block No. 11 & 12, Udyog Bhavan, Sector -11, Gandhinagar, Gujarat

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. All Scientist-F/ Scientist-E/ Directors
5. All Scientist-D / Dy. Secretaries
6. All Scientist-C/ Under Secretaries
7. All Scientist-B
8. NIC, MNRE for uploading on Ministry's website
9. CA, MNRE / Cash Section
10. Hindi Section for Hindi version
11. Sanction Folder

Yours faithfully,



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F. No. 32/4/2018-SPV Division
भारत सरकार / Government of India
नवीन और नवीकरणीय ऊर्जा मंत्रालय/ Ministry of New & Renewable Energy (MNRE)
ग्रिड सौर ऊर्जा प्रभाग / Grid Solar Power Division

Guidelines for Scheme for solarisation of sun-temple town of Modhera, District – Mehsana, Gujarat

1. Introduction

Ministry of New & Renewable Energy, Government of India hereby announces the implementation of the Scheme for solarisation of sun-temple town of Modhera, District – Mehsana, Gujarat, which shall be governed by these Guidelines. Modhera 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 pilot demonstration programme for a town running completely through solar energy. The Scheme proposes investment of around Rs. 65 Crore with 50% Central Financial Assistance (CFA) of around Rs. 32.5 crore. The scheme will be valid from 2019-20 to 2020-21 (two years).

2. Aim & Objective

2.1 Aim: Solarisation of sun-temple-town of Modhera in District – Mehsana, Gujarat

2.2 Objective: The objective of this scheme is to take forward Hon'ble Prime Minister's vision of solarisation of sun-temple town of Modhera in District – Mehsana, Gujarat, so that the domestic and agricultural electricity needs of all the households of Modhera are fully fulfilled with solar energy, thereby setting up a pilot demonstration project for a village/ town running completely on solar energy.

3. Proposed RE installations and their costs and funding

The Scheme envisages solarisation of Modhera through setting up of the following renewable energy installations in Modhera, with an investment of around Rs. 65 Crores with 50% central financial assistance of around Rs. 32.5 crore from Government of India through MNRE and balance 50% coming from Government of Gujarat.

Sl. No.	Type and Capacity of RE Installation Proposed	Tentative Cost of proposed RE installation	% of cost proposed to be shared by Gujarat Govt./ Organisations of Gujarat Govt.		% of Cost to be shared by MNRE	
		Cr. Rs.	% share	Cr. Rs.	% share	Cr. Rs.
1	6 MW ground-mounted solar PV power plant	around Rs. 65 Crs.	50%	around Rs. 32.5 Crs.	50%	around Rs. 32.5 Crs.
2	271 nos. x 1KW Rooftop Solar PV Systems					
3	100 kW aggregate capacity of Rooftop Solar PV Systems on Govt. Buildings					
4	15 MWh, 6MW, Battery Energy Storage System (BESS)					
5	Smart Energy Components (<i>smart energy meters for individual households and 11 kV feeders, solar EV charging stations and associated solar plant and battery storage, smart load monitoring and data centre with weather station, microprocessor based relay and equipment monitoring for grid protection, smart street lights near Modhera sun temple</i>)					



4. Scheme Implementing Agency:

Implementation of this Scheme / Project is to be done by the Government of Gujarat. The Scheme will be implemented by a Scheme Implementing Agency, to be decided / selected / nominated by Government of Gujarat, who will issue the tenders for setting up of proposed renewable energy installations, monitor the implementation of the projects, ensure compliance with MNRE's Scheme and submit monthly progress reports to MNRE.

5. Methodology of Implementation/ Scheme Modalities

5.1 The Scheme Implementing Agency will issue a single tender for selection of renewable energy developer for implementing all the five (5) renewable energy installation as mentioned in para (3) above. The bidding will be on the combined project cost for implementing these renewable energy installations and maintaining them, if required, for a period as specified by the Scheme Implementing Agency. The terms and duration for Operation & Maintenance may be different for different components. The bidder will have to quote individual cost components (including operation and maintenance for a period specified by Scheme Implementing Agency) for all the five (5) proposed renewable energy installations, as well as the total project cost. The bidders who has submitted the lowest total project cost will be selected as the successful bidder.

5.2 The successful bidder will be responsible for implementation of all five (5) renewable energy installations, within a period as specified by the Scheme Implementing Agency in the tender or by 31.03.2021, whichever is earlier.

5.3 Operation and maintenance of the proposed renewable energy installations under the Scheme shall be the responsibility of the concerned successful renewable energy developer(s).

5.4 The proposed renewable energy installations will either be owned by the concerned individual beneficiaries or by any agency nominated by Government of Gujarat for this purpose.

5.5 In order to ensure that the components under the proposal for which ownership is proposed to be with the individual beneficiaries, continue to be in operation for their expected lifetime and that they are not diverted to use/ place, other than the one they are intended for, the implementing agency shall take appropriate measures like taking an undertaking from the concerned beneficiary or any other measure as it may deem appropriate to achieve the intended purpose.

5.6 For the proposed renewable energy installations to be undertaken, the guidelines of National Monument Authority will be followed and necessary permissions, if required, will be taken from concerned Authority.

5.7 All mandatory approvals/ clearances in respect of the proposed renewable energy installations are to be obtained by the Government of Gujarat or Agency(ies) authorised by Government of Gujarat for this purpose.

5.8 Central Financial Assistance (CFA):

The proposed Central Financial Assistance (CFA), in the form of Capital Subsidy of 50% for this scheme will be provided from the budgetary allocation of the Ministry of New & Renewable Energy. The balance 50% of the project cost shall be borne by Government of Gujarat. The amount of Central Financial Assistance (CFA) eligible will be 50% of the project cost discovered through transparent competitive bidding (subject to ceiling of MNRE's share of funding as mentioned in para 3 above), and the same will be disbursed through the Scheme Implementing Agency as follows:

- i. The first 50% of eligible CFA will be disbursed along with Issuance of Letter of Award; and
- ii. The balance 50% CFA will be disbursed on successful commissioning of the project.
- iii. In case due to unavoidable circumstances, if some of the renewable energy installations which were to be implemented by the successful bidder, could not get implemented, then the CFA to be disbursed through the Scheme Implementing Agency to the successful bidder shall be proportionately reduced on the basis of the individual cost components, submitted by the successful bidder at the time of bidding.



5.9 Outcomes proposed to be achieved through grant of CFA:

- i. The proposed project 'solarisation of Modhera Sun Temple-Town' is likely to develop Modhera into an 'energy-resilient' village using clean and smart technologies.
- ii. The proposed projects, by way of demonstration, will help in furtherance of usage of Renewable Energy (RE) in the country, thereby assisting in Government of India's commitment towards RE power.
- iii. The proposed solarisation will demonstrate technologies intended to be deployed in the near future for a sustainable renewable energy ecosystem such as smart metering, grid-scale energy storage and demand response.
- iv. Proposed projects will showcase solar energy technologies, solar EV charging station, etc. to the tourists/visitors coming to Modhera and benefit local population through new employment opportunities.
- v. The proposed demonstration project is unique in its own way, as it promotes new technology, employment, tourism etc.

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

The proposed Scheme will be valid from 2019-20 to 2020-21 (two years) and the year-wise estimated physical achievements and financial requirements, are as under:

4 th Quarter of FY 2019-20/ 1 st Quarter of FY 2020-21		FY 2020-21		Total
Estimated Physical Achievement	Estimated CFA Requirement (50% CFA on issuance of LoA) (Cr. Rs.)	Estimated Physical Achievement	Estimated CFA Requirement (balance 50% CFA, on commissioning) (Cr. Rs.)	Total Estimated CFA Requirement (Cr. Rs.)
Issuance of Letters of Award (LoA) for implementation of all the 5 renewable energy installation proposed for solarisation of Modhera	16.25	Commissioning of all the 5 renewable energy installation proposed for solarisation of Modhera	16.25	32.50

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

7. Monitoring and Evaluation

- a. Government of Gujarat or Agency(ies) authorised by Government of Gujarat for this purpose, 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 Government of Gujarat or its authorised Agency(ies) for these activities.
- b. The Scheme Implementing Agency authorized / nominated by the Government of Gujarat, for this purpose, will issue the tenders for setting up of proposed renewable energy installations, monitor the implementation of the projects, ensure compliance with MNRE's Scheme and submit monthly progress reports to MNRE.

8. Power to interpret /amend/ remove 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 Minister-in-charge, without increasing the financial requirements.

