No. 32/8/2014-15/GSP Government of India Ministry of New & Renewable Energy (Grid Solar Power Division)

Block-14, C.G.O. Complex, Lodhi Raod, New Delhi – 110001. Dated: 5th December, 2014

To The Pay & Accounts Officer, Ministry of New & Renewable Energy New Delhi – 110003.

Sub: Pilot-cum-Demonstration Project for Development of Grid Connected Solar PV Power Plants on Canal Banks and Canal Tops

Sir,

I am directed to convey the sanction of President for implementation of a Pilot-cum-Demonstration Project for Development of Grid Connected Solar PV Power Plants on Canal Banks and Canal Tops in the country during the 12th Plan period at an estimated cost of Rs. 975 crores and with Central Financial Assistance (CFA) of Rs. 228 crores, as per the provisions of the guidelines enclosed at Annexure-I. The main objective, implementation arrangements, etc. are given in the succeeding paragraphs.

2. Objective

The objective of this scheme is to achieve gainful utilization of the unutilized area on top of Canals and also the vacant Government land along the banks of Canals wherever available, for setting up Solar PV power generation plants for feeding the generated power to Grid and to set up a total capacity of 100 MW solar PV power projects to achieve targets set under National Solar Mission (NSM) announced by the Government of India.

3. Implementation Arrangements

- **3.1 Applicability**: All the States and Union Territories having Canal network will be eligible for benefits under the scheme. However, the Scheme may be availed by only those States which have either fulfilled their Solar RPOs or commit to do so within a given time frame.
- **3.2 Eligibility:** State Power Generation Companies/ State Government Utilities/ any other State Government Organization/ PSUs/ GoI PSUs or GoI organisations, provided that they are operating in power sector or own canal systems, i.e. are into irrigation. Proposals from States in Project mode will also be acceptable on completion during 2014-15 or later.
- **3.3 Implementation agency:** The solar PV power plants will be developed by the State Power Generation Companies/ State Government Utilities/ any other State Government Organization/ PSUs/ GoI PSUs or GoI organizations, provided that they are operating in power sector or own canal systems, i.e. are into irrigation.
- **3.4 Scheme Manager:** The Scheme manager on behalf of MNRE would be Solar Energy Corporation of India (SECI) under the MNRE. SECI will handle funds to be made available under the scheme on behalf of GOI, for which they will be provided service charge of 1% of the funds handled/routed through them.
- **3.5 Mode of Operation of Scheme:** The solar PV power plants will be developed by the State Power Generation Companies/ State Government Utilities/ any other State Government Organization/ PSUs/ GoI PSUs or GoI organizations, provided that they are operating in power sector or own canal systems, i.e. are into irrigation. The Scheme manager on behalf of MNRE would be Solar Energy Corporation of India (SECI) under the MNRE. The Implementing Agency will submit the application / proposal for setting up Grid-connected Solar PV Power Plants on Canal Banks/ Canal Tops to MNRE. MNRE/SECI will analyze/ scrutinize the application/ proposal and if found appropriate, MNRE will sanction the project, including the ones in project mode made during 2014-15. Thereafter, SECI shall release the capital subsidy of upto Rs. 3cr./MW for Canal Top SPV projects and Rs. 1.5cr/MW for Canal Bank SPV Projects.

4. Central Financial Assistance

- Rs.3 crore/MW or 30% of the project cost, whichever is lower, for Canal Top SPV projects and Rs. 1.5 crore/MW or 30% of the project cost, whichever is lower, for Canal Bank SPV projects.
- CFA of upto Rs.225 crore for 100 MW (50 MW on Canal Tops and 50 MW on Canal Banks) to be disbursed over a period of maximum 2 years post sanctioning of the plants as under:
 - upto 40% on sanctioning of the projects.
 - 60% on successful commissioning of the projects.
- Service charge to SECI @1%: Rs.2.25 crore.
- 5. The funds for implementation of the Programme during FY 2014-15 will be drawn from the 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: 31 Grant in Aid 2014-15 (Plan).
- 6. This sanction issues in exercise of powers delegated to this Ministry and with the concurrence of IFD dated 04.12.2014 vide their Dy. No. IFD/1694/2014-15 dated 04.12.2014.

Yourş faithfully,

Tel: 011-24362488

Copy for information and necessary action to:-

- 1. All Central Government Ministries and Departments;
- 2. Principal Director of Audit, Scientific Audit-II, DGACR Building, I.P. Estate, Delhi 110002.
- 3. Director General (Local Bodies), Office of the Comptroller & Auditor General, 9-Deendayal Upadhyay Marg, New Delhi
- 4. All State/ UT Energy Secretaries/SNAs
- 5. All State/UT Utilities
- 6. All State/ UT Irrigation Departments
- 7. MD, Solar Energy Corporation of India, 1st Floor, D-3, A Wing, Religare Building, District Centre. Saket. New Delhi.
- 8. Director General, Bureau of Indian Standards, Manak Bhawan, 9, Bahadur Shah Zafar Marg, New Delhi 110002.
- 9. DG, National Institute of Solar Energy, Gwal Pahari, Gurgaon, Haryana

Internal Distribution:

- 1. PS to Hon'ble Minister, NRE / PSO to Secretary, MNRE;
- 2. All Advisers and Group Heads/JS (TK) / JS (VJ) / JS&FA/ Eco. Adviser
- 3. All Directors
- 4. All Under Secretaries in MNRE
- 5. Dir (NIC) to upload this on Ministry's website
- 6. Cash Section
- 7. Hindi Section for Hindi version
- 8. Sanction Folder

Yours faithfully,

Director

Ministry of New & Renewable Energy

(Grid Solar Power Division)

Guidelines for Pilot-cum-Demonstration Project for Development of Grid Connected Solar PV Power Plants on Canal Banks and Canal Tops

1. Proposal

MNRE through this scheme proposes to encourage the State Power Generation Companies/ State Government Utilities/ any other State Government Organization/ PSUs to set up grid-connected solar PV power plants of 1-10 MW capacity with an aggregate capacity of 100 MW on Canal Tops / Canal Banks (50 MW Canal Top SPV Projects and 50 MW Canal Bank SPV projects) by providing capital subsidy of Rs.3cr/MW for Canal Top SPV projects and Rs. 1.5cr/MW for Canal Bank SPV Projects; 40% at time of sanctioning and balance 60% on commissioning of plant.

These plants will be sanctioned over a period of 2 years and will be required to be commissioned over a period of 15 months from date of sanction unless extended by competent authority for valid reasons. All these plants will get installed over a span of 3 years. Besides gainful utilization of the unutilized space over Canal Tops/ unutilized land on Canal Banks for power generation, the plants will enable the participating States to meet their Renewable Purchase Obligation (RPO) mandates and also provide employment opportunities to local population. The Scheme may be availed by only those States which have either fulfilled their Solar RPOs or commit to do so within a given time frame.

Such plants could be set up in all the States having its network of Canals. It is proposed to encourage the State Power Generation Companies/ State Government Utilities/ any other State Government Organization/ PSUs to set up such plants, either on their own or through private sector developers. CPSUs and other Govt. organizations, which are either operating in the power sector or own canal systems will also be eligible to apply under the scheme and may be termed as the implementing agency. MNRE will provide fixed capital subsidy of Rs.3cr./MW of installed capacity (AC output) for Canal Top SPV projects and Rs. 1.5cr/MW of installed capacity (AC output) for Canal Bank SPV Projects. The implementing agency will meet the balance expenditure through own resources or loan or any other means like developers and will enter into firm, long-term (25 years) tie-up with concerned State Irrigation Department/ relevant organisations for utilization of the Canal Tops/ Banks for setting up the power plants and PPA with State Utility/ Discom for evacuation and purchase of the power generated from their plant at tariffs as mutually agreed or as fixed by the State Electricity Regulatory Commission.

2. Proposed Outcomes

- The scheme will lead to gainful utilization of the unutilized area on top of Canals and also the vacant Government land along the banks of Canals wherever available, for setting up Solar PV power generation plants for feeding the generated power to Grid.
- A total capacity of 100 MW will be set up and will help to achieve targets set under National Solar Mission (NSM) announced by the Government of India, in demonstration mode and project mode.

3. Applicability

All the States and Union Territories having Canal network will be eligible for benefits under the scheme.

4. Eligibility

State Power Generation Companies/ State Government Utilities/ any other State Government Organization/ PSUs/ GoI PSUs or GoI organisations, provided that they are operating in power sector or own canal systems, i.e. are into irrigation. Proposals from States in Project mode will also be acceptable on completion during 2014-15 or later.

5. Capacity

Solar PV Power Plants of minimum capacity of 1 MW and a maximum capacity of 10 MW will be covered under this Scheme.

6. Implementation agency

The solar PV power plants will be developed by the State Power Generation Companies/ State Government Utilities/ any other State Government Organization/ PSUs/ GoI PSUs or GoI organizations, provided that they are operating in power sector or own canal systems, i.e. are into irrigation.

7. Scheme Manager

The Scheme manager on behalf of MNRE would be Solar Energy Corporation of India (SECI) under the MNRE. SECI will handle funds to be made available under the scheme on behalf of GOI, for which they will be provided service charge of 1% of the funds handled/ routed through them.

8. MNRE support

- Rs.3 crore/MW or 30% of the project cost, whichever is lower, for Canal Top SPV projects and Rs. 1.5 crore/MW or 30% of the project cost, whichever is lower, for Canal Bank SPV projects.
- CFA of Rs.225 crore for 100 MW (50 MW on Canal Tops and 50 MW on Canal Banks) to be disbursed over a period of maximum 2 years post sanctioning of the plants as under:
 - upto 40% on sanctioning of the projects.
 - 60% on successful commissioning of the projects.
- Service charge to SECI @1%: Rs.2.25 crore.
- 8.1 As per Department of Expenditure's O.M. No. 59(07)/PF.II/2014 dated 30.10.2014, the following is clarified :
 - a) The scheme to be implemented in the form of a pilot-cum-demonstration project within the budgetary resources already available in B.E. 2014-15 and within the overall XII Plan outlay for the Department.
 - b) The total cost of the Scheme is Rs. 975 crore and the total estimated requirement of CFA is Rs. 228 crore.
 - c) It is a Central Scheme of MNRE and is a part of the National Solar Mission (NSM) that was approved by the Cabinet as one of the 8 Missions envisaged under NAPCC and was launched in January, 2010.

9. Transmission and evacuation of power from solar plant

The plants would be designed for inter-connection with the transmission network of STU or any other transmission utility at voltage level of 33 KV or above. Interconnection with the Discom network may be accepted in cases where the Discom is the ultimate buyer of the entire quantity of power from that project.

10. Power Sale arrangement

The Implementing Agency will enter into firm, long-term (25 years) tie-up with concerned State Irrigation Department/ relevant organisations for utilization of the Canal Tops/Banks for setting up the power plants and PPA with State Utility/ Discom for evacuation and purchase of the power generated from their plant at tariffs as mutually agreed or as fixed by the State Electricity Regulatory Commission.

11. Mode of Operation of Scheme

The solar PV power plants will be developed by the State Power Generation Companies/ State Government Utilities/ any other State Government Organization/ PSUs/ GoI PSUs or GoI organizations, provided that they are operating in power sector or own canal systems, i.e. are into irrigation. The Scheme manager on behalf of MNRE would be Solar Energy Corporation of India (SECI) under the MNRE. The Implementing Agency will submit the application / proposal for setting up Grid-connected Solar PV Power Plants on Canal Banks/ Canal Tops to MNRE. MNRE/SECI will analyze/ scrutinize the application/ proposal and if found appropriate, MNRE will sanction the project, including the ones in project mode made during 2014-15. Thereafter, SECI shall release the capital subsidy of upto Rs. 3cr./MW for Canal Top SPV projects and Rs. 1.5cr/MW for Canal Bank SPV Projects, keeping para 7 above in view as per the following timelines:

Sl.	Milestone	Timeline	% of subsidy
No.			disbursed
1	Date of issue of administrative approval, i.e. sanctioning of the project	Day 0	Upto 40%
2	Commissioning of the plant	15 months	60%

There could be some intermediate installments in case full 40% is not released as advance.

12. Involvement of Private Developers/ EPC Companies

The implementation agency may associate private developers and/or EPC companies in the projects execution and its subsequent operation and maintenance work. Specifically, they may support developers to actually set up and run the plant. In that case, the implementers will make the investment and supply power at a tariff which may be derived through a bidding process. Alternatively, the implementing agency may make its own investment and appoint and EPC contractor to build the project.

13. Right to Recovery

MNRE will be entitled to recovery of the subsidy amount if the project is abandoned or fails to generate power or dismantled at any time during its life of 25 years.

14. Interpretation

In case of any ambiguity in interpretation of any of the provisions of the Scheme, the decision of the Ministry shall be final

15. Arbitration

Any dispute arising out of any provision of the scheme, shall be settled by an Arbitrator appointed by this Ministry for the purpose and his decision shall be final and binding

16. Power to remove difficulties

If there is any need for any amendment to the Scheme for better implementation or any relaxation is required in the norms for canal-top / canal-bank solar PV power projects due to operational problems, MNRE will be competent enough to make such amendments with the approval of Minister-in-Charge.
