No. 302/4/2017-GRID SOLAR
भारत सरकार / Government of India
नवीन और नवीकरणीय ऊर्जा मंत्रालय/ **Ministry of New & Renewable Energy**
ग्रिड सौर ऊर्जा प्रभाग / Grid Solar Power Division

Block No. 14, C.G.O. Complex,
Lodi Road, New Delhi – 110003
Dated: 5th March, 2019

ORDER

Subject: Implementation of Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for setting up 12,000 MW grid-connected Solar Photovoltaic (PV) Power Projects by the Government Producers with Viability Gap Funding (VGF) support for self-use or use by Government/ Government entities, either directly or through Distribution Companies (DISCOMS)

Sir/ Madam,

1. The sanction of the President is hereby conveyed for Implementation of Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for setting up 12,000 MW grid-connected Solar Photovoltaic (PV) Power Projects by the Government Producers with Viability Gap Funding (VGF) support of Rs 8,580 Crores, for self-use or use by Government/ Government entities, either directly or through Distribution Companies (DISCOMS), as per provisions of the Scheme enclosed at Annexure-I.

2. Implementation of the Scheme

2.1 The 12,000 MW or more capacity of grid connected solar power projects will be set up by the Government Producers as per the terms and conditions specified in Government Producer Scheme enclosed as **Annexure-I.** The major terms and conditions are mentioned below:

2.2.1 Definition of Government Producer: For the purpose of the 'Government Producer Scheme', 'Government Producer' can be any entity which is either directly controlled by the Central or State Government or is under the administrative control of Central or State Government or a company in which Government is having more than 50% shareholding.

2.2.2 Domestic Content Requirement (DCR): The Scheme will mandate use of both solar photovoltaic (SPV) cells and modules manufactured domestically as per specifications and testing requirements fixed by MNRE. The DCR initially will be for both solar PV cells and solar PV modules. However, MNRE will undertake a review every year and based on the capacities of various stages of solar PV manufacturing in India, may increase this requirement to include wafers, ingots and polysilicon manufactured in India, or earmark some proportion for modules made from cells which are of higher efficiency standards than the applicable industry standard at that point of time.

2.2.3 Scheme Modality (major points):

2.2.3.1 Any Government Producer setting up solar PV power project will be eligible for assistance under this Scheme if it sets up a solar PV power plant for self-use or use by Government/ Government entities, either directly or through DISCOMS.

2.2.3.2 The Solar PV power project capacity under the Government Producer Scheme would be allocated to the Government Producers by way of bidding, who in turn, will secure an arrangement for usage of power for self-use or use by Government/ Government entities, either directly or through DISCOMS.

2.2.4 VGF:

2.2.4.1. With the objective of covering the cost difference between the domestically produced solar cells and modules and imported solar cells and modules, VGF shall be provided under the Scheme.

While the maximum permissible VGF has been kept at ₹0.70 cr./MW, the actual VGF to be given to a Government Producer under the Scheme would be decided through bidding using VGF amount as a bid parameter to select project proponent. The Solar Energy Corporation of India (SECI) will be entrusted with the task of conducting the bidding amongst Government Producers for allocation of solar power project capacity under the Scheme, with VGF amount as a bid parameter to select project proponent. The maximum permissible VGF amount will also be reviewed from time to time, by MNRE, and will be reduced by MNRE if the cost difference comes down.

2.2.4.2 Release of VGF: VGF will be released in two tranches as follows:

(i) 50% on Award of contract to the EPC contractor (including in-house EPC Division); and
(ii) balance 50% on successful commissioning of the full capacity of the project

3. Role of Solar Energy Corporation of India (SECI)

SECI will handle the scheme on behalf of MNRE including conducting bidding on VGF basis, amongst Government Producers, for selection of Government Producers for implementing this Scheme. SECI will be given a fee of 1% of the VGF disbursed for conducting bidding, handling the funds, monitoring of the projects and managing all aspects of the Scheme. SECI will ensure that the proposed projects comply with the WTO provisions, and also the compliance by Government Producers on the mandatory requirement of DCR under the Scheme.

4. Project Implementation Schedule for Solar PV Projects

The total 12,000 MW capacity will be added in 4 years period i.e. from financial year 2019-20 to 2022-23.

5. Power to remove difficulties: If there is need for any amendment to the Government Producer 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 and VGF limits.

6. The funds for implementation of the above Scheme would be met from Demand No. : 67 - Ministry of New & Renewable Energy, 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 Renewable Power, Detailed Head: 04 - Solar power, Object Head: 35 - Grants for Creation of Capital Assets, during the year 2018-19 to 2022-23.

7. This issues in exercise of powers delegated to this Ministry and with the concurrence of IFD dated 18.02.2019 vide their Dy. No. 522 dated 18.02.2019 and approval of competent authority dated 01.03.2019.

5/3/19

(Ruchin Gupta)
Director
Email: ruchin.gupta@gov.in
Ph: 011-24362488

To

Pay and Accounts Officer,
Ministry of New & Renewable Energy,
New Delhi

Copy for information and necessary action to: -

1. Central Government Ministries/Departments,
2. Principal Director of Audit, Scientific Audit-II, DGACR Building. I.P. Estate, Delhi-02
3. All State/UT Energy Secretaries
4. All Heads of State/UT Nodal Agencies
5. All State/UT Discoms
6. Managing Director, SECI

Internal Distribution:

1. PS to Hon'ble Minister, NRE
2. Sr. PPS to Secretary, MNRE
3. PPS to AS, MNRE & PPS to AS&FA, MNRE
4. JS(GKG)/ JS (ANS)/ JS (BPY)/ EA/Advisers
5. Dy. Secy. (Fin), MNRE
6. Dir (NIC), MNRE, for uploading this on the Ministry's website.
7. CA, MNRE/ Cash Section
8. Hindi Section for Hindi version
9. Sanction Folder

5/3/19

(Ruchin Gupta)
Director
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Annexure-I

Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for setting up 12,000 MW grid-connected Solar Photovoltaic (PV) Power Projects by the Government Producers with Viability Gap Funding (VGF) support for self-use or use by Government/ Government entities, either directly or through Distribution Companies (DISCOMS)

1. Background

1.1 As part of Paris Climate Agreement, India has committed to install forty percent of its electricity capacity from non-fossil fuels by 2030. For achieving this goal, India has set an ambitious target of setting up 1,75,000 MW of renewable energy capacity, including 1,00,000 MW of solar power, by 2022. The Union Cabinet, as per its decision dated 17th June 2015, revised the solar capacity target from 20,000 MW to 1,00,000 MW by 2022.

1.2 Thus it is imperative for new power generation capacities to come up largely based on renewable energy and most part of it being solar power. Significant progress has since been made after the target for installing solar power capacity was enhanced in 2015 from 20,000 MW to 1,00,000 MW. As on 30.11.2018, around 24,570 MW of solar capacity had been installed and around 38,130 MW of capacity was under various stages of installation/ bidding. However, the solar capacity addition depends largely upon imported solar PV cells and modules as the domestic manufacturing industry has limited capacity of around 3,000 MW for solar PV cells and around 10,000 MW for solar PV modules. In order to achieve the set target of 1,00,000 MW without any interruption, address issues of national energy security and long term environment sustainability, it is imperative that the domestic manufacturing of solar PV cells and modules is strengthened. However, this needs to be done in a manner which is compliant to the World Trade Organisation (WTO) Regulations.

1.3 In case, the domestic industry is not strengthened, a situation may arise wherein the overarching goal of the country for energy security and especially renewable energy and long term climate sustainability may become difficult to be attained. This can seriously jeopardise the energy security of the country especially in case of any disruption in supplies from foreign sources. Accordingly the support and encouragement to domestic manufacturing industry is essential and inescapable in national interest of energy security and climate sustainability.

1.4 It is important to note that electricity generation in the country has largely been a Government function through its subordinate organisations and public sector undertakings. Therefore, it is imperative to involve various Government entities for developing a robust power generation base which will not only help in achieving the objective of long term energy security for the country but will also ensure setting up of renewable energy projects, without any interruption, by leveraging their existing engineering capabilities and other resources like land, infrastructure, etc. available with them.

1.5 In view of above stated objectives, it is proposed that various Government Producers set up solar power plants using domestically manufactured solar PV cells and modules for generating solar power for self-use or use by Government/ Government entities, either directly or through DISCOMS. Such Government Producers will submit an undertaking that there will be no commercial sale/ resale of power and that, such producers will be using electricity produced either for self-use or use by Government/ Government entities. Since in such cases, the domestically manufactured solar PV cells and modules will be used for solar power generation plants to be set up and owned by the Government Producers and as such solar PV cells and modules are neither being used for commercial resale, nor is the product that emerges from them, that is, electricity produced, will be sold commercially, such a mechanism is compliant to the three requirements under Article III:8(a) of GATT, 1994, which deals with the "Government Procurement" derogation.

1.6 With this background, the Government is implementing the Central Public Sector Undertaking (CPSU) Scheme Phase-II (12,000 MW Government Producer Scheme) for setting up 12,000 MW grid-connected Solar Photovoltaic (PV) Power Projects by the Government Producers with Viability Gap Funding (VGF) support for self-use or use by Government/ Government entities, either directly or through Distribution Companies (DISCOMS).

2. Scope and Objectives

2.1 The Scope of the Government Producer Scheme is to provide the necessary policy framework and mechanism for selection and implementation of 12,000 MW or more grid-connected solar PV power projects with Viability Gap Funding, by various Government Producers, such as Public Sector Undertakings (both Central and State), Government of India and State Government Organisations and Agencies (hereinafter referred to as Government Producers). Any reference to 'Government Producers' includes Organisations, Agencies, Public Sector Undertakings of both Government of India and State Governments.

2.2 The main objectives of the Government Producer Scheme are:

a. To facilitate national energy security and environment sustainability through use of domestically manufactured solar PV cells and modules for Government purpose.

b. Scaling up of sizes of projects thereby leading to economies of scale.

c. To leverage the existing infrastructure of Government Producers, including land, transmission facilities etc., and their engineering capabilities.

d. Provide long-term visibility and road map for solar power development enabling creation of India as manufacturing hub in the Solar PV.

e. To create good business model and systems for various Central and State Government entities to take forward.

3. Proposal for setting up of 12,000 MW capacity under Government Producer Scheme

3.1 12,000 MW grid-connected solar PV power projects are proposed to be set up through Government Producers with a budgetary support of ₹8580 crores as VGF. The total project cost for 12,000 MW solar PV projects under this Government Producer Scheme is estimated as ₹48,000 crore. The required VGF support for this 12000 MW will be ₹8,580 crore. The Government Producer Scheme will create sufficient demand for domestically produced solar PV cells and modules and will ensure full utilisation of domestic capacity of cells and modules for 3 to 4 years.

3.2 The 12,000 MW or more capacity of grid connected solar power projects will be set up by the Government Producers as per the terms and conditions specified in this Government Producer Scheme. Major terms and conditions are mentioned below:-

3.2.1 Definition of Government Producer: For the purpose of the 'Government Producer Scheme', 'Government Producer' can be any entity which is either directly controlled by the Central or State Government or is under the administrative control of Central or State Government or a company in which Government is having more than 50% shareholding.

3.2.2 Domestic Content Requirement (DCR): The Scheme will mandate use of both solar photovoltaic (SPV) cells and modules manufactured domestically as per specifications and testing requirements fixed by MNRE. The DCR initially will be for both solar PV cells and solar PV modules. However, MNRE will undertake a review every year and based on the capacities of various stages of solar PV manufacturing in India, may increase this requirement to include wafers, ingots and polysilicon manufactured in India, or earmark some proportion for modules made from cells which are of higher efficiency standards than the applicable industry standard at that point of time.

3.2.3 Usage Charges: Power produced by the Government Producers can be used for self-use or use by Government/ Government entities, either directly or through DISCOMS on payment of mutually agreed usage charges of not more than ₹3.5/unit, which shall be exclusive of any other third party charges like wheeling and transmission charges and losses, point of connection charges and losses, cross-subsidy surcharge, State Load Despatch Centre (SLDC)/ Regional Load Despatch Centre (RLDC) charges, etc. as may be applicable.

3.2.4 **Scheme Modality:**

3.2.4.1 Any Government Producer setting up solar PV power project will be eligible for assistance under this Scheme if it sets up a solar PV power plant for self-use or use by Government/ Government entities, either directly or through DISCOMS.

3.2.4.2 Having secured the arrangement for usage of power for self-use or use by Government/ Government entities, either directly or through DISCOMS, the Government Producer will have to deploy both domestically produced solar PV cells and domestically produced solar PV modules in its solar PV power plant. MNRE may review and increase this requirement to include wafers, ingots and polysilicon manufactured in India, or earmark some proportion for modules made from cells which are of higher efficiency standards than the applicable industry standard at that point of time.

3.2.4.3 The Solar PV power project capacity under the Government Producer Scheme would be allocated to the Government Producers by way of bidding, who in turn, will secure an arrangement for usage of power for self-use or use by Government/ Government entities, either directly or through DISCOMS

3.2.5 VGF: With the objective of covering the cost difference between the domestically produced solar cells and modules and imported solar cells and modules, VGF shall be provided under the Scheme. While the maximum permissible VGF has been kept at ₹0.70 cr./MW, the actual VGF to be given to a Government Producer under the Scheme would be decided through bidding using VGF amount as a bid parameter to select project proponent. The Solar Energy Corporation of India (SECI) will be entrusted with the task of conducting the bidding amongst Government Producers for allocation of solar power project capacity under the Scheme, with VGF amount as a bid parameter to select project proponent. The maximum permissible VGF amount will also be reviewed from time to time, by MNRE, and will be reduced by MNRE if the cost difference comes down. VGF will be released in two tranches as follows:

(i) 50% on Award of contract to the EPC contractor (including in-house EPC Division); and
(ii) balance 50% on successful commissioning of the full capacity of the project

3.2.6 Setting up of the aggregate capacity by the Government Producers, may be done by them either through in-house Engineering Procurement & Construction (EPC) facility or through open competitive bidding process in a transparent manner in accordance with General Financial Rules (GFR), 2017, Manual for Procurement of Goods, 2017 and CVC Guidelines on the subject.

3.2.7 The Government Producers would be free to avail other available fiscal incentives including Accelerated Depreciation, if any, as per the extant rules.

3.3 With the implementation of above mentioned Government Producer Scheme, 12,000 MW of grid connected solar PV power projects would be set up by the Government Producers. The entire capacity/electricity generated through this capacity/its equivalent, is expected to be utilized by Government Producers for self-use or use by Government/ Government entities, either directly or through DISCOMS, in WTO compliant manner.

3.4 The Scheme will help in giving a push to "Make-in-India" by encouraging Government Producers to procure solar cells and modules from domestic manufacturers.

3.5 Role of Solar Energy Corporation of India (SECI)

SECI will handle the scheme on behalf of MNRE including conducting bidding on VGF basis, amongst Government Producers, for selection of Government Producers for implementing this Scheme. SECI will be given a fee of 1% of the VGF disbursed for conducting bidding, handling the funds, monitoring of the projects and managing all aspects of the Scheme. SECI will ensure that the proposed projects comply with the WTO provisions, and also the compliance by Government Producers on the mandatory requirement of DCR under the Scheme.

3.6 Project Implementation Schedule for Solar PV Projects

The total 12,000 MW capacity will be added in 4 years period i.e. from financial year 2019-20 to 2022-23.

3.6.1 Timelines for project commissioning:

For commissioning of solar power projects under this Scheme, time period of 18 months from the date of letter of award, shall be provided to Government producer. However, in order to expedite the implementation of the Scheme and to give impetus to domestic solar PV manufacturing, a shorter timeline can also be specified by MNRE.

3.6.2 Penalty for delay in commissioning:

In case, the commissioning of the project is delayed beyond the specified Scheduled Commissioning Date (SCD), the amount of VGF sanctioned to the project shall be reduced by 0.15% *(zero point one five percent)* of the sanctioned VGF, on per day basis, for the period of such delay, and proportionate to the capacity delayed or not commissioned.

In addition to the Scheduled Commissioning Period, the maximum time period allowed for commissioning of the full Project Capacity, during which the VGF is reduced, is six months from the SCD.

In case, the Commissioning of the Project is delayed beyond six months from SCD, the project capacity under the Scheme shall be reduced to the Project Capacity Commissioned, and the balance Capacity will stand terminated from the Scheme and ineligible for any VGF under this Scheme.

The above penal provisions, and the time periods specified, are subject to any extension allowed in SCD.

3.6.3 Time-extension/ Dispute Resolution:

All requests regarding time-extension or dispute resolution, on force majeure events, shall be dealt by SECI in terms of the provisions in contractual agreement and the instructions issued by MNRE from time to time, including any Dispute Resolution Mechanism instituted by MNRE.

3.7 Total Capacity and Portfolio of Solar PV Power Projects:

3.7.1 The total aggregated capacity of the grid connected solar power projects to be set up by Government Producers, on Build-Own-Operate (BOO) basis under the Government Producer Scheme shall be at least 12,000 MW.

3.7.2 The total capacity under government Scheme may go higher than 12,000 MW, if there is saving in VGF amount, so that maximum capacity can be set up within the total sanctioned budget.

4. Power to remove difficulties

If there is need for any amendment to the Government Producer 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 and VGF limits.

283/20/2019-GRID SOLAR
Government of India
Ministry of New & Renewable Energy
(Grid Solar Power Division)

Block-14, C.G.O. Complex
Lodi Road, New Delhi – 110003.

Dated: 03.07.2019

To:

1. **Chairman-cum-Managing Directors / Managing Directors of all Electricity Distribution Companies (DISCOMs) in Government Sector.**

2. **Managing Director, Solar Energy Corporation of India (SECI),** 1st Floor, D-3, A Wing, Prius Platinum Building, District Centre, Saket, New Delhi-110 017, Tel: 011-71989201, Fax: 71989235, Email: md@seci.co.in

Sub: Scheme Modalities and Role of DISCOMS in MNRE's CPSU Scheme Phase-II / Government Producer Scheme for 12,000 MW Solar PV Power Projects - reg:

Sir,

1. Government of India, through Ministry of New & Renewable Energy (MNRE) has approved the implementation of CPSU Scheme Phase-II for setting up 12,000 MW grid-connected Solar Photovoltaic (PV) Power Projects by CPSUs/ State PSUs/ Government Organisations, with Viability Gap Funding (VGF) support for self-use or use by Government/ Government entities, either directly or through Distribution Companies (DISCOMS).

2. The salient points of the said Scheme are as under:

- **12,000 MW** Solar PV Power Projects to be set up by **"Government Producers".**
- '*Government Producer*' can be any entity which is either:
  a) directly controlled by the Central or State Government or
  b) is under the administrative control of Central or State Government or
  c) a company in which Government is having more than 50% shareholding.
- **Power Usage:** for self-use, or use by Government/Government entities, either directly or through DISCOMS.

- **Year wise allocation Targeted:**

2019-20	**-**	**4000 MW**
2020-21	**-**	**4000 MW**
2021-22	**-**	**4000 MW**

- To be set-up over 4 years (2019-20 to 2022-23).
- **Capacity Allocation:** By way of Bidding on VGF by SECI
- **Implementation Agency:** Solar Energy Corporation of India Limited (SECI)
- **Viability Gap Funding (VGF) :** Maximum Rs 0.7 Crs. / MW, to be decided through bidding
- **Usage Charge:**
    - Charges that can be collected for supplying power
    - To be mutually agreed between producing and consuming Government entities , subject to limit of **Rs 3.50/unit** (other charges like wheeling, transmission, Load Dispatch Centre charges, extra)
- **Domestic Content Requirement (DCR):** Both Solar cells & modules to be domestically manufactured

3. **Allocation Methodology:**

    - SECI will invite bids from Government Producers
    - Bidders will quote VGF requirement, within the ceiling VGF
    - Allocation on bucket filling basis, based on lowest VGF requirement

4. **First SECI BID: 2000 MW**

    - SECI has issued bid for 2000 MW solar PV projects under Tranche-I of this scheme
    - As of now, Last Date of bid submission is 15.07.2019

5. ROLE OF DISCOMS IN DIFFERENT SCENARIOS OF GENERATION AND CONSUMPTION OF POWER UNDER THE SCHEME:

Scenario - I : Govt Producers Consuming the Power themselves

- Discoms to facilitate 'Open Access' to Government Producers intending to Use solar power generated by themselves through Open Access.

Scenario - II : Govt Producers Supplying Power to other identified Government entities

- Discoms to facilitate 'Open Access' to Government Producers intending to supply power to other identified government entities through open access

Scenario - III : Govt. Producers Supplying Power to large pool of Unidentified Government entities through Discom

- Discoms to facilitate supply of power by Govt. Producers to other user Government entities, by ensuring that the billing reflects "usage charges" not more than Rs 3.50/ unit, in addition to other charges.
- Since in such cases, Government Consumers will also be consuming power from sources other than solar, Discoms can just add one line in their bills to the Government Consumers stating that *"this includes supply of power at usage charges of not more than Rs. 3.50/unit, in addition to other regulator mandated charges".*

Scenario - IV : PSU Discoms themselves become Government Producers

Case-1:

- Power produced can be utilised for supply to other Government bodies or non-commercial sectors (that is where power is not sold) like agriculture, local urban bodies, etc.

Case-2:

- Discoms can supply power to Identified/unidentified government entities by ensuring that the billing reflects "usage charges" not more than Rs 3.50/unit.
- In this case also, since Government Consumers will also be consuming power from sources other than solar, Discoms can just add one line in their bills to the Government Consumers stating that *"this includes supply of power at usage charges of not more than Rs. 3.50/unit, in addition to other regulator mandated charges".*

6. Considering the fact that most of the Discoms may not be comfortable in setting up the solar PV power plants under the Government Producer Scheme, as they might find it difficult to arrange upfront capital investment for setting up solar plants, following alternate methodology is suggested:

Alternate methodologies for setting up of solar PV power plants by Discoms without investing upfront capital cost (this methodology can even be deployed by other Government Producers interested to participate in the Scheme):

- DISCOMs bring in the CAPEX amount upfront, and set up the plant on their own or through EPC contractors

- **Alternatively,** where Capital Funds are scarce DISCOMs, may adopt a modified annuity model, which puts generation accountability on the EPC contractors, as follows:

  - **Bid :**
    - DISCOMS invite bids for design, construction and supply of Solar Power Generating Systems, with DCR --- (*Just like EPC*)
    - Successful bidder to also provide **Operation & Maintenance** for 25 years
    - **Land** and transmission also to be in the scope of the bidder.
    - Discoms would be the **Owner** of the Plant

  - **Evaluation:**
    - Bidder to quote total cost of (solar plant & its O&M)
    - Bidder to also quote min. generation/yr. for 25 yrs.
    - Bid with least cost per unit generation to be L1 bidder

  - **Payment:**
    - Total quoted cost to be paid in 12x25 equal monthly instalments, subject to following adjustments:
    - Any **increase** in generation from quoted min. annual generation would qualify for incentive payment at the rate of quoted and accepted cost per unit generation.

- Any **decrease** in generation from quoted min. annual generation would be liable for penalty at the rate of quoted and accepted cost per unit generation

7. This issues with the approval of Hon'ble Minister (Power &NRE)

Thanking you,

Yours Sincerely,

3/7/19

(Ruchin Gupta)
Director
Telefax: 011-24362488
Email: ruchin.gupta@gov.in

Copy for internal circulation to:

1. PS to Hon'ble Minister (Power & NRE),
2. Sr. PPS to Secretary, MNRE
3. PPS to AS, MNRE