

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 3963
TO BE ANSWERED ON 10.08.2017

USE OF SOLAR POWER

3963. SHRI MANOJ TIWARI:

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether the Government has taken any steps to augment the use of solar power in the country;
- (b) if so, the details thereof;
- (c) whether the Government is contemplating to install solar power panels at the rooftops of all the Government offices;
- (d) if so, the details of the offices identify for the purpose;
- (e) whether the Government is contemplating to exempt/provide subsidy to the persons opting for installation of solar power panels on the rooftops of private residences; and
- (f) if so, the details thereof?

ANSWER

THE MINISTER OF STATE FOR POWER, COAL, NEW & RENEWABLE ENERGY AND MINES (INDEPENDENT CHARGE) (SHRI PIYUSH GOYAL)

(a) & (b): Yes Madam. The Government is taking many steps to augment the use of solar power in the country through various financial assistance/promotional incentives for installation of off-grid solar applications and on-grid solar power plants. Details of steps taken are given in **Annexure I** and **Annexure II** respectively.

(c) & (d): Yes Madam. The Ministry of New & Renewable Energy (MNRE) is promoting Achievement-Linked Incentive scheme for Government Sector wherein incentives upto 25% of the benchmark cost in General Category States/Union Territories and upto 60% of the benchmark cost in Special Category States, North Eastern States, Andaman & Nicobar and Lakshadweep Islands for installation of Grid Connected Solar Rooftop Projects.

(e) & (f): Yes Madam. Government is providing Central financial assistance up to 30% of bench mark cost in General Category States and up to 70% of the benchmark cost in Special Category States, North Eastern States, Lakshadweep and Andaman & Nicobar Islands for installation of grid connected solar power projects on the rooftops of the private residences.

ANNEXURE I

**ANNEXURE I REFERRED TO IN REPLY TO PARTS (a) & (b) OF LOK SABHA
UNSTARRED QUESTION NO. 3963 FOR 10.08.2017**

Details of off- grid schemes and Incentives for promotion of Solar Energy

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| <p>1.</p> | <p>Off-Grid scheme- SPV lighting systems and power plants, Solar Pumps</p> | <p>1. Lighting Systems</p> <p>A. Home lights/Lanterns/Street Lights with Lead acid batteries: Benchmark Cost = Rs. 340/Wp: CFA=Rs. 102/Wp</p> <p>B. Street lights with Lithium Ferro Phosphate batteries: Benchmark cost= Rs. 475/Wp: CFA= Rs. 142.5/Wp</p> <p>2. Power packs with battery bank @7.2 VAh/Wp</p> <p>A. Up to 300 Wp: Benchmark Cost = 200/Wp: CFA=Rs. 60/Wp</p> <p>B. 300 Wp to 1 kWp: Benchmark Cost = Rs. 135/Wp: CFA=Rs. 40.5/Wp</p> <p>3. Solar Power plants with battery bank @7.2 VAh/Wp and capacity up to 10 kWp: Benchmark Cost = Rs. 135/Wp: CFA=Rs. 40.5/Wp</p> <p>4. Solar Pumps</p> <p>A. Up to 3 HP (DC): Benchmark Cost = Rs. 1,20,000/HP: CFA=Rs. 36,000/HP</p> <p>B. 3HP to 5 HP (DC): Benchmark Cost = Rs. 95,000/HP: CFA=Rs. 28,500/HP</p> <p>C. Up to 3 HP (AC): Benchmark Cost = Rs. 1,00,000/HP: CFA=Rs. 30,000/HP</p> <p>D. 3HP to 5 HP (AC): Benchmark Cost = Rs. 85,000/HP: CFA=Rs. 25,500/HP</p> |
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Note: CFA stands for Central Financial Assistance.

ANNEXURE II

**ANNEXURE II REFERRED TO IN REPLY TO PARTS (a) & (b) OF LOK SABHA
UNSTARRED QUESTION NO. 3963 FOR 10.08.2017**

Details of on grid schemes and Incentives for promotion of Solar Energy

| Sr. No. | Scheme | Central Financial Assistance/Subsidy |
|----------------|---|--|
| 1. | Scheme for Development of Solar Parks and Ultra Mega Solar Power Projects | <ul style="list-style-type: none"> • Rs.20 lakhs/MW or 30% of the project cost including Grid-connectivity cost, whichever is lower • CFA @ Rs 25.00 lakh per park for DPR preparation of solar parks, conducting surveys, etc. |
| 2. | Operationalization of 300 MW Solar PV Projects by defence establishment and para military forces | <ul style="list-style-type: none"> • The bidders selected on the basis of bids for minimum VGF requirement for the project with commitment to supply solar power at Rs. 5.50/KWh for 25 years. • The upper limits of the VGF are as follows: <ul style="list-style-type: none"> (i) Category-I: Rs.2.5 crore/MW for project capacity up to 5 MW or 30% of the project cost whichever is lower; (ii) Category-II: Rs. 2 crore/MW for project capacity greater than 5 MW up to 25 MW or 30% of the project cost whichever is lower; and (iii) Category-III: Rs. 1.5 crore /MW for project capacity greater than 25 MW or 30% of the project cost whichever is lower. <p>Keeping in view the technology upgradation and economies of scales, the upper limit of VGF was revised on 17.02.2017 to @ Rs. 1.10 Cr./MW for all projects irrespective of sizes for which tenders were not brought out.</p> |
| 3. | Scheme for Setting up of 750 MW Grid-connected Solar PV Power Projects under Batch-1 of Phase-II of JNNSM with Viability Gap Funding Support | The selection of the bidders has been based on the Viability Gap Funding (VGF) required for the project in an ascending order upto the full capacity. Viability Gap Funding (VGF) is limited to 30% of the project cost or 2.5 crore per MW, whichever is lower. Solar Energy Corporation of India (SECI) has signed PPA with such project developers for purchasing entire power from the project for 25 years at 5.45 Rs. per unit (4.75 Rs. per unit for projects availing accelerated depreciation). |
| 4. | Scheme for Setting up of 2000 MW Grid-connected Solar PV Power Projects under Batch-III of Phase-II of JNNSM with Viability Gap Funding Support | The Project developer is provided a viability gap funding based on his bid. The upper limit for VGF is kept at Rs.1.0 Crore/MW for open category (Rs. 1.31 Crore/MW for projects in DCR category). |

| Sr. No. | Scheme | Central Financial Assistance/Subsidy |
|---------|--|--|
| 5. | Scheme for Setting up of 5000 MW Grid-connected Solar PV Power Projects under Batch-IV of Phase-II of JNNSM with Viability Gap Funding Support | The Project developer is provided a Viability Gap Funding based on his bid. The upper limit for VGF is kept at Rs. 1.0 crore/MW for open category and Rs. 1.25 crore/MW for projects in DCR category. SECI will select projects through competitive e-bidding based on minimum VGF sought (quoted in INR/MW), or there may be a provision for quoting a discounted tariff (quoted in INR/kWh). |
| 6. | Grid Connected Rooftop | CFA is 30% of the benchmark cost for general category state and 70% CFA for North Eastern and Special Category States for residential, social and institutional sector |
| 7. | Pilot-cum-demonstration project for development of grid connected solar PV power plants on canal banks and canal tops | <ul style="list-style-type: none"> • Financial support of 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. • Total 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: <ul style="list-style-type: none"> – upto 40% on sanctioning of the projects. – 60% on successful commissioning of the projects. • Service charge to SECI @1% of project cost. |
| 8. | Development of Solar Cities Programme | Financial support up to of Rs. 50 lakh for each city for preparation of the Master Plan alongwith few DPR (up to Rs. 10 lakh), oversight of its implementation (up to Rs. 10 lakh), setting up and functioning of Solar City Cell in the city (up to Rs. 10 lakh) and organizing promotional activities (up to Rs. 20 lakh). |
| 9. | Scheme for setting up of 1000 MW of Grid-Connected Solar PV Power projects by Central Public Sector Undertakings (CPSUs) under Batch- V of Phase II of JNNSM | <ul style="list-style-type: none"> • Viability Gap Funding (VGF) provided through SECI at a fixed rate of Rs. 1 Cr/ MW for projects where domestically produced cells and modules are used and Rs. 50 lakh/ MW in cases where domestically produced modules are used. • VGF released in two tranches as follows: <ol style="list-style-type: none"> (i) 50% on successful commissioning of the full capacity of project (COD). (ii) Balance 50% after one year of successful operation of the project. |