GOVERNMENT OF INDIA MINISTRY OF NEW AND RENEWABLE ENERGY **LOK SABHA**

UNSTARRED QUESTION NO. 2687

TO BE ANSWERED ON 01.12.2016

INSTALLATION OF SOLAR POWER SYSTEMS IN RAILWAY STATIONS AND GREENFIELD AIRPORTS

2687. SHRI RAM MOHAN:

SHRI NAIDU KINJARAPU:

SHRI ASHWINI KUMAR CHOUBEY:

SHRI RAJU SHETTY:

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

- (a) whether the Government proposes to install solar power systems in railway stations and Greenfield airports across the country, if so the details thereof, State-wise;
- (b) whether such systems presently exist in airports and railway stations in the country;
- (c) if so, the details of such railway stations and airports with solar power plants to fulfil their power needs;
- (d) whether any trains are installed with solar power system in the country, if so, the details therefor and if not, the reasons therefor and the time by which it is likely to be installed; and
- (e) the action plan formulated to promote renewable energy at railway stations and airports in the country?

ANSWER

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

- (a): Yes Madam. Government is encouraging installation of solar power systems particularly on rooftops all over the country including on railway stations and airports as well. However, no State-wise target has been set. For railway stations and airports.
- **(b)&(c):** So far as aggregate capacity of 37.11 MWp solar power systems have been installed at airports and 10.50 MWp in railway premises as per details given in Annexure.
- (d): Yes Madam. Railway has provided solar panels on rooftop of coaches for train lighting system in four narrow gauge coaches plying on Pathankot-Joginder Nagar route in Kangra Valley section and 14 narrow gauge coaches plying on Kalka-Shimla section on trial basis.
- Ministry of Railways has set a target for setting up of 1,000 MWp solar power plants on (e): railway/private land and railway buildings by 2020. The Ministry of New and renewable Energy has signed a Memorandum of Understanding with Ministry of Railways for Cooperation in the areas of renewable energy including solar on 12th August 2015. MNRE has sanctioned/approved subsidy/incentives for aggregate 500 MWp capacity to Ministry of Railways. In addition of solar power plants at various airports/locations for a total capacity of 18.385MWp are in progress

ANNEXURE REFERRED TO IN REPLY TO PARTS (b)&(c) OF LOK SABHA UNSTARRED QUESTION NO. 2687 FOR 01.12.2016

| SI. | Airport/unit | State | Capacity in KWp |
|-----------------|---|-------------------|-----------------|
| No. Roof Top | • | | |
| | | | |
| | Rajiv Gandhi Bhawan | Delhi | 250 |
| 2 | Raipur | Chhattisgarh | 100 |
| 3 | Bhopal | Madhya Pradesh | 100 |
| 4 | Indore | Madhya Pradesh | 100 |
| 5 | Guwahati-I | Assam | 50 |
| 6 | Jaisalmer | Rajasthan | 100 |
| 7 | Bhubaneswar | Odisha | 100 |
| 8 | Amritsar | Punjab | 400 |
| 9 . | Jaipur | Rajasthan | 100 |
| 10 | Lucknow | Uttar Pradesh | 500 |
| 11 | Kolkata | West Bengal | 2000 |
| 12 | Calicut | Kerala | 750 |
| 13 | Guwahati -II | Assam | 250 |
| 14 | Chennai (RT) | Tamil Nadu | 1500 |
| 15 | Patna (RT) | Bihar | 250 |
| 16 | Ranchi (RT) | Jharkhand | 250 |
| 17 | New operational office RED-Chennai (RT) | Tamil Nadu | 100 |
| 18 | Varanasi (RT) | Uttar Pradesh | 600 |
| 19 | Hyderabad | Andhra Pradesh | 500 |
| 20 | Madurai (RT) | Tamil Nadu | 170 |
| 21 | Kochi | Kerala | 1100 |
| | Total Roof Cap | acity (In KWp) | 9270 |
| round l | Mounted | | |
| 1 | Chandigarh | UT | 3000 |
| 2 | Kochi | Kerala | 12000 |
| 3 | Hyderabad | Telangana | 5000 |
| 4 | New Delhi | Delhi | 7840 |
| Total (| Ground Mounted Cap | acity (In KWp) | 27840 |
| | | acity (In KWp) | 37110 |

Solar Installation in Railways (as on 25.05.2016)

| Sr. no | Railway | Grid connected solar plan |
|--------|----------------------------------|---------------------------|
| | | capacity |
| 1 | CR | 60kWp |
| 2 | ER | 40 kWp |
| 3 | ECoR | 100kWp |
| 4 | NR | 1080kWp |
| 5 | NER | 130kWp |
| 6 | NWR | 120kWp |
| 7 | SECR | 70kWp |
| 8 | RCF/RBL | 2000kWp |
| 9 | Total Grid connected | 3766kWp |
| 10 | Other railway non grid connected | 6734 kWp |
| 11 | Grand Total | 10500 kWp |

File No. 06/21/2016-17/PQ Government of India Ministry of New and Renewable Energy (Grid Connected Solar Rooftop Division) *****

Subject: Lok Sabha Unstarred Question No. 2687 to be answered on 01.12.2016 on 'INSTALLATION OF SOLAR POWER SYSTEMS IN RAILWAYS STATIONS AND GREENFIELD AIRPORTS'

Ref: F/R

The Lok Sabha Unstarred Question No. 2687 from SHRI RAM MOHAN, SHRI NAIDU KINJARAPU, SHRI ASHWINI KUMAR CHOUBEY, SHRI RAJU SHETTY, to be answered on 01.12.2016 on INSTALLATION OF SOLAR POWER SYSTEMS IN RAILWAYS STATIONS AND GREENFIELD AIRPORTS has been received which is reproduced as follows:-

- (a) whether the Government proposes to install solar power systems in railways stations and Greenfield airports across the country, if so the details thereof, State-wise;
- (b) whether such systems presently exist in airports and railways stations in the country;
- (c) if so, the details of such railway stations and airports with solar power plants to fulfil their power needs;
- (d)whether any trains are installed with solar power system in the country, if so, the details thereof and if not, the reasons thereof and the time by which it is likely to be installed; and
- (e) the action plan formulated to promote renewable energy at railway stations and airports in the country?

The input from Airport Authority of India has been received and incorporated. The input not received from Railways

The draft reply is placed below for approval (DFA).

(Hiren Chandra Borah) Scientist C 28.11.2016

<u>Dir (VS)</u>