LOK SABHA STARRED GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
STARRED QUESTION NO. 64
TO BE ANSWERED ON 21.07.2016

SOLAR POWER

*64. SHRI BRIJBHUSHAN SHARAN SINGH

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

(a) whether the Government has drawn an ambitious plan to harness one lakh megawatt of power from solar energy by the end of 2022, if so, the details thereof;
(b) the total investment requirement for the purpose and programmes/schemes drawn to achieve the targets;
(c) whether the solar power generated and eventually stored in batteries is extremely expensive and if so, the details thereof and the steps proposed to be taken to reduce the price of the batteries; and
(d) whether any alternative to the storage batteries is being evolved if so, the details thereof?

ANSWER

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

(a),(b),(c)&(d): A Statement is laid on the Table of the House.

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STATEMENT

STATEMENT REFERRED TO IN REPLY TO LOK SABHA STARRED QUESTION NO. 64 FOR 21.07.2016

(a) & (b): Yes Madam. The Government has fixed target to install solar power generation capacity of 1 lakhs MW by 31st March, 2022.

The total investments required for 1 lakh MW will be approximately Rs. 6 lakh crore. In order to achieve the target, the Government, at present, is implementing the following schemes:-

i. Solar Park Scheme for setting up of over 25 Solar Parks and Ultra Mega Solar Power Projects targeting over 20,000 MW of solar power capacity.
ii. Scheme for setting up 1000 MW of Grid-Connected Solar PV Power Projects by Central Public Sector Undertakings (CPSUs) and Government of India organisations with VGF.
iii. Scheme for setting up 300 MW of Grid-Connected Solar PV Power Projects by Defence Establishments and Para Military Forces with VGF.
iv. Pilot-cum-demonstration project for development of grid connected solar PV power plants on canal banks and canal tops.
v. Bundling Scheme - 3000 MW grid-connected solar PV power plants through NTPC Ltd./ NVVN
vi. VGF Scheme for setting up of 2000 MW of Grid Connected Solar PV Power Projects through Solar Energy Corporation of India. (SECI)
vii. Viability Gap Funding (VGF) Scheme for setting up of 5000 MW of Grid Connected Solar PV Power Projects through SECI
viii. Installation of Grid Connected Solar Rooftop Power Plants

Additional Scheme will be drawn up from time to time

(c): Solar power generated & stored in batteries is expensive, and therefore is generally used only in Off-Grid applications where grid connected power is not available. It is however cheaper than power generated through diesel Gen-set.

In grid connected system, power is supplied from several sources like wind, hydro, coal based thermal etc. beside solar and therefore round the clock supply of power is possible without battery storage. Large scale grid connected battery storage will be possible only if the price of battery comes down drastically. Research is going on in various part of the world including India to develop batteries which can be deployed on large scale economically.

(d): Other alternatives storage mechanisms include compressed air, fly-wheel and pumped hydro. In these technologies, the surplus electricity available at certain time is used to compress the air or pump the water from lower reservoir to higher level. The energy thus Stored is used to produce electricity to meet demand when required.

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