

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHRI RAJ KUMAR SINGH): (a) and (b) In the year 2016-17, aggregate capacity of around 11,322 MW of renewable energy was installed in the country, and in year 2017-18, aggregate capacity of around 11,887 MW was installed. Thus, renewable energy installations in the country are progressively increasing and do not appear to be facing any major challenges at present. There is no reliable formal institution which carries out rankings on renewable energy country attractive index. However, there are private agencies who carry out such rankings. The renewable energy sector in India is consistently growing and continues to remain attractive for investors from across the world.

(c) and (d) Solar tariffs in India saw the lowest ever level of ₹2.44 per unit in reverse auctions carried out by Solar Energy Corporation of India (SECI) in May 2017, for 200 MW and again in July, 2018, for 600 MW.

#### **Tariff quotes of renewable energy**

782. SHRI N. GOKULAKRISHNAN: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) whether most of the recent renewable energy auctions were won by companies with foreign backed capital and with interest rates rising and the end of quantitative easing by the US, experts anticipated cost to rise, potentially turning the low tariff quotes to become unsustainable;

(b) whether it is a fact that the country's renewable energy capacity stood at 69,685 MW at the end of 2017-18; and

(c) whether the target is to achieve 175 GW by financial year 2022-23 which would require about US \$125 billion-US \$ 87.5 billion debt and the remaining as equity?

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHRI RAJ KUMAR SINGH): (a) Renewable energy sector in India is attracting companies from across the world. However, as at the stage of auction, the details regarding their fund tie-up for the project are not required to be submitted, this ministry has no information about the capital structure/composition of the companies participating in the renewable energy auctions. The solar tariffs in India saw the lowest ever level of ₹2.44 per unit in reverse auctions for solar power carried out by Solar Energy Corporation of India (SECI) in May 2017 and again in July, 2018, thereby indicating the absence of any major challenges to low solar tariffs in India.

(b) A total of around 69,784 MW of renewable energy capacity has been installed in the country as on 31.03.2018 from all renewable energy sources which includes around 34,145 MW from Wind, around 21,651 MW from solar, around 4,486 MW from Small Hydro Power and around 9,502 MW from Bio-power.

(c) The Government has set a target of installing 175 GW of renewable energy capacity by the year 2022 which includes 100 GW from solar, 60 GW from wind, 10 GW from biomass and 5 GW from small hydro capacity. So far, 71.33 GW of renewable energy capacity has been installed in the country upto June 2018. To achieve the balance target of 103.67 GW, investment of around 76 billion US\$ has been estimated at present capital cost which includes 53.20 billion US\$ as debt and 22.80 billion US\$ as equity for the debt-equity ratio of 70:30 as per Central Electricity Regulatory Commission (CERC) norms. The details of the source-wise requirement of funds are given in the Statement.

***Statement***

*Details of the source-wise requirement of funds*

Source	Capacity Target by 2022 (MW)	Capacity achieved as on 30.06.2018 (MW)	Balance capacity (MW)	Average estimated capital cost per MW (in cr. ₹)	Total amount required (in cr. ₹)	Amount required (in billion US\$) [@ 1US\$= 68.5 INR]
Wind Power	60,000	34,293.48	25,706.52	5	1,28,532.60	18.76
Solar Power	1,00,000	23,022.83	76,977.17	5	3,84,885.85	56.19
Biomass Power	10,000	9,515.91	484.09	7	3,388.63	0.49
Small Hydro Power	5,000	4,493.20	506.80	10	5,068.00	0.74
<b>GRAND TOTAL</b>	<b>1,75,000</b>	<b>71,325.42</b>	<b>1,03,674.58</b>		<b>5,21,875.08</b>	<b>76.18</b> (say 76 billion US\$)

**Mismatch in demand and supply of power in the country**

783. SHRI HARSHVARDHAN SINGH DUNGARPUR: Will the Minister of POWER pleased to state:

(a) whether it is a fact that the supply of power is less 5 times as compared with demands of power in the country;