

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 3584
TO BE ANSWERED ON 03.04.2017

DECLINE IN INVESTMENT ON SOLAR POWER

3584. SHRI C.P. NARAYANAN:

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

- (a) the reasons for decline in investment for solar power;
- (b) by when solar power is expected to overtake conventional power in output;
- (c) what proportion of conventional power will be essential for voltage stability;
- (d) what is the proposed road map; and
- (e) what is the expected reduction in expenses for power after a decade?

ANSWER

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

(a): As per the United Nations Environment Programme and Bloomberg New Energy Finance joint report titled “Global Trends in Renewable Energy Investment 2016” the investment in renewable energy sector in India for the years 2013, 2014 and 2015 was US \$6.6, US\$ 8.3 and US\$ 10.2 billion respectively with Foreign Direct Investment increasing from US\$ 4.14 billion in 2013-14 to US\$ 7.76 billion in 2015-16.

(b): The overtaking of conventional power in output by solar power is dependent upon the price of solar power (including the balancing charge) vis-à-vis the price of conventional power.

(c): Voltage stability is a dynamic phenomenon primarily determined by the ability of the system to meet the reactive power requirement of the electrical load connected to the system. The system voltage can only be adjusted by reactive power injections from system devices till the system voltage stability is maintained. The Voltage stability limit is the limiting stage in a power system beyond which no amount of reactive power injection will raise the system voltage to its nominal state. As per the CEA Technical Standards for Connectivity to the Grid, the renewable sources of energy are also to provide dynamic reactive power support. Therefore, it is not mandatory to have any conventional power plants to maintain voltage stability.

(d): The transmission system is planned to inter-alia ensure the stable system operation with frequency and voltage stability by maintaining the load generation balance in terms of active and reactive power. In the context of the planning for evacuation of the renewable capacity addition envisaged in 12th Plan in renewable rich States (Andhra Pradesh, Gujarat, Himachal Pradesh, Jammu and Kashmir, Karnataka, Maharashtra, Rajasthan, Madhya Pradesh and Tamil Nadu), transmission system, both Intra State and inter State, is planned under Green Energy Corridor.

(e): Reduction in expenses of power after a decade will depend upon variety of reasons such as demand of power, cost of land, cost of coal and renewable energy options, innovations in technology, cost of financing and cost of power evacuation system etc.
