

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA

UNSTARRED QUESTION NO. 2236
TO BE ANSWERED ON 10.03.2016

CRYSTALLINE SILICON PV CELLS

2236. SHRI PRATHAP SIMHA:

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

- (a) whether to manufacture 85 GW of crystalline Silicon (c-Si) PV cells, an estimated production of 450000 tonnes of polysilicon will be required in the next seven years with the current global production of about 300000 tonnes per year, if so, the details thereof;
- (b) whether to achieve India's solar energy aspirations, a huge demand is foreseen for crystalline Silicon (c-Si) PV panels and consequently for polysilicon in the next few years, if so, the details thereof;
- (c) whether the Government proposes to provide incentives to polysilicon manufacturers by giving special incentives in the Modified Special Incentive Package Scheme (M-SIPS) for the benefit of solar energy sector, if so, the details thereof; and
- (d) the other steps being taken by the Government in this regard?

ANSWER

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

(a): Yes, Madam. Depending upon technology to be used for manufacturing of crystalline silicon, about 4,25,000 tones of polysilicon is estimated to be required to produce 85 GW of crystalline silicon PV cells in approx. 6 years. The present global manufacturing capacity of polysilicon is estimated to be around 3,76,000 tones per annum.

(b): The Government has set a target of 100 GW solar power by 2022. The year-wise targets are given below:

Year/Category	Rooftop Solar(MW)	Large Scale Solar Power (MW)	Total (MW)
2015-16	200	1,800	2,000
2016-17	4,800	7,200	12,000
2017-18	5,000	10,000	15,000
2018-19	6,000	10,000	16,000
2019-20	7,000	10,000	17,000
2020-21	8,000	9,500	17,500
2021-22	9,000	8,500	17,500
Total	40,000	57,000	97,000*

*3,743 MW commissioned upto 2014-15.

The above targets will create demand for solar photo voltaic panels which could be poly/mono silicon, thin film or based on any other cost effective technology.

(c): The financial support is already available for manufacturing of polysilicon under the Modified Special Incentive Package Scheme (M-SIPS) of Department of Electronics & Information Technology (DeitY), Government of India. The details are given in Annexure.

(d): The Government is providing a range of fiscal and promotional incentives as given below for promotion of solar energy under various schemes:-

- capital and/or interest subsidy,
- tax holiday on the earnings for 10 years,
- generation based incentive,
- accelerated depreciation,
- viability gap funding (VGF),
- financing solar rooftop systems as part of home loan,
- concessional excise and custom duties,
- preferential tariff for power generation from renewables
- Renewables are covered under priority lending.

In addition, Foreign Direct Investment up to 100 per cent under the automatic route is also permitted.

**Annexure referred to in reply to part (c) of Lok Sabha unstarred Question No. 2236 to
be answered on 10.3.2016**

Revised Financial Incentives under Modified Special Incentive Scheme of DeitY

S.No.	Type	Financial Incentives	
		Special Economic Zone (SEZ)	Non-SEZ
2.5 for Solar Photovoltaics (SPV):	(i) Polysilicon	20% of Capex + 10% of Production Subsidy on Production turnover (Ex-factory)	25% of Capex + Reimbursement of Excise/CVD on capital equipment + 10% of Production Subsidy on Production turnover (Ex-factory)
	(ii) Ingots and/or wafers	20% of Capex + 10% of Production Subsidy on Production turnover (Ex-factory)	25% of Capex + Reimbursement of Excise/CVD on capital equipment + 10% of Production Subsidy on Production turnover (Ex-factory)
	(iii) Cells	20% of Capex + 10% of Production Subsidy on Production turnover (Ex-factory)	25% of Capex + Reimbursement of Excise/CVD on capital equipment + 10% of Production Subsidy on Production turnover (Ex-factory)
	(iv) Modules/Panels	20% of Capex	25% of Capex + Reimbursement of Excise/CVD on capital equipment

Source: Extracts from Notification No. 27(35)/2013-IPHW dtd. 3rd August, 2015 from Deptt. of Electronics and Information Technology)