

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 945**  
ANSWERED ON 11/02/2025

**STATUS OF PV EXPORTS**

945. SHRI YERRAM VENKATA SUBBA REDDY

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

- (a) how India looks at becoming the sixth largest solar PV exporter in the world;
- (b) the efforts being made to push India's share in PV exports from 2.5 percent to 7 percent by 2030;
- (c) the details of countries where the country is exporting its PV cells/modules;
- (d) the efforts being made to explore the export potential to other countries; and
- (e) the details of other competitors, how those countries are placed and the steps taken/proposed to take to compete with those countries?

**ANSWER**

**THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER**

**(SHRI SHRIPAD YESSO NAIK)**

(a) Exports of solar PV modules from India have steadily risen in last few years. In FY 2021-22, the value of export of solar PV modules was around 83 million USD, which rose to around 1969 million USD in FY 2023-24 and in FY 2024-25 till November 2024, solar PV modules worth around 782 million USD have been exported.

(b) The Government has taken several steps to increase domestic solar PV manufacturing, which inter alia includes those mentioned at **Annexure-I**. These steps are envisaged to contribute to overall progress of domestic solar PV manufacturing including helping in export of Solar PV Modules.

(c) The details of countries where the country is exporting its solar PV cells and modules is at **Annexure-II**.

(d) Apart from efforts made by individual companies to export solar PV modules, at Government level, during bilateral engagements including those on free trade with other countries/regions, the issue of solar supply chain including exploring possibility of export of solar PV modules from India, is also discussed.

(e) China is the leading global exporter of solar PV modules. Majority of India's solar PV module exports go to United States of America (USA). As per November 2024 report titled 'Indian Solar PV Exports Surging' by Institute for Energy Economics and Financial Analysis and JMK Research and Analysis, the USA imports most of its solar PV components from Vietnam, Thailand, Malaysia and Cambodia. Since 2021, these countries have consistently made up over 75% of the USA's annual solar PV imports. India's share in USA's solar PV imports has been increasing over the past few years. Between 2021 and 2023, this share grew more than fourfold, from 2.2% to 9%. The steps taken by the Government to support domestic solar PV manufacturing, which inter-alia, include those mentioned at Annexure-I are envisaged to make domestic solar PV manufacturers globally competitive and help them in competing with other solar PV exporting countries.

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**Annexure referred to in reply of parts (b) and (e) of the Rajya Sabha Unstarred Question No. 945 for 11.02.2025 regarding 'Status of PV exports'**

Initiatives taken to increase domestic production of solar PV components, inter-alia, include:

**(i) Production Linked Incentive (PLI) Scheme:** The Government of India is implementing the Production Linked Incentive (PLI) Scheme for High Efficiency Solar PV Modules, for achieving domestic manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV modules, with an outlay of Rs. 24,000 crore. The Scheme is being implemented in two tranches. Tranche-I has an outlay of Rs. 4,500 crore, under which Letters of Award have been issued for setting up of 8,737 MW of fully integrated solar PV module manufacturing units. For Tranche-II with an outlay of Rs. 19,500 crore, Letters of Award have been issued for setting up of 39,600 MW of fully/ partially integrated solar PV module manufacturing units.

**(ii) Domestic Content Requirement (DCR):** Under some of the current schemes of the MNRE, namely CPSU Scheme Phase-II, PM-KUSUM Components B & C, and PM Surya Ghar: Muft Bijli Yojana, wherein government subsidy is given, it has been mandated to source solar PV cells and modules from domestic sources.

**(iii) Preference to 'Make in India' in Public Procurement:** In accordance with Department for Promotion of Industry and Internal Trade (DPIIT) 'Public Procurement (Preference to Make in India), Order', MNRE had notified Purchase Preference (linked with local content) for RE sector which, inter-alia, identified list of all goods and services or works in respect of which there is sufficient local capacity and local competition is available and mandated that only "Class-I local supplier" shall be eligible to bid for the above goods/services/works with the mandate that minimum local content should be at least 50%.

**(iv) Imposition of Basic Customs Duty on import of solar PV cells & modules:** The Government has imposed Basic Customs Duty (BCD) on import of solar PV cells and modules, with effect from 01.04.2022.

**(v) Discontinuation of Customs Duty Concessions:** MNRE has discontinued issuance of Customs Duty Concession Certificates for import of material /equipment for initial setting up of solar PV power projects with effect from 02.02.2021.

**(vi) Renewable Energy Research and Technology Development Programme (RE-RTD):** The Ministry is implementing a "Renewable Energy Research and Technology Development Programme (RE-RTD)" through various research institutions and industry to develop indigenous technologies and manufacturing for widespread applications of new and renewable energy in efficient and cost-effective manner in the country. The Ministry provides up to 100% financial support to Government/non-profit research organizations and upto 70% to Industry, start-ups, private Institutes, entrepreneur, and manufacturing units.

## Annexure-II

Annexure referred to in reply of part (c) of the Rajya Sabha Unstarred Question No. 945 for 11.02.2025 regarding 'Status of PV exports'

Value of Export in USD Millions								
Country	2021-22		2022-23		2023-24		2024-25 (till Nov 2024)	
	HS Code 8541 4011	HS Code 8541 4012	HS Code 8541 4200	HS Code 8541 4300	HS Code 8541 4200	HS Code 8541 4300	HS Code 8541 4200	HS Code 8541 4300
	Solar PV Cells	Solar PV Modules	Solar PV Cells	Solar PV Modules	Solar PV Cells	Solar PV Modules	Solar PV Cells	Solar PV Modules
AFGHANISTAN	1.02	2.57		4.03		0.91		
ALGERIA								
ANGOLA								
ANTIGUA								
ARGENTINA								
AUSTRALIA	0.09	0.06	0.04	0.18		0.26		0.02
AUSTRIA						0.01		
BAHAMAS	0.01							
BAHARAIN IS	0.07					0.03		
BANGLADESH PR	0.07	0.03	0.11			0.03		19.81
BELGIUM	0.03			0.45		0.04		0.06
BENIN	0.01			0.07				
BHUTAN	0.11	0.06	0.01	0.03		0.08		0.21
BOLIVIA				0.01				
BOTSWANA								
BRAZIL								
BRUNEI								
BULGARIA								
BURKINA FASO								0.02
BURUNDI				0.01				
CAMBODIA					0.95			
CAMEROON								
CANADA	0.6	0.57		0.76	0.07	2	1.76	0.62
CAPE VERDE IS		0.01						
C AFRI REPUBLIC								
CHAD				0.05				
CHILE								
TAIWAN								
CHINA P RP		0.12	0.55	0.05	0.19	0.58		0.67
COLOMBIA						0.06		
COMOROS								
CONGO D. REP.	0.1	0.08	0.08	0.12		0.83		
CONGO P REP				0.01		0.07		
COSTA RICA								
COTE D' IVOIRE	0.01							
CROATIA								
CYPRUS								
CZECH REPUBLIC								

Value of Export in USD Millions								
Country	2021-22		2022-23		2023-24		2024-25 (till Nov 2024)	
	HS Code 8541 4011	HS Code 8541 4012	HS Code 8541 4200	HS Code 8541 4300	HS Code 8541 4200	HS Code 8541 4300	HS Code 8541 4200	HS Code 8541 4300
	Solar PV Cells	Solar PV Modules	Solar PV Cells	Solar PV Modules	Solar PV Cells	Solar PV Modules	Solar PV Cells	Solar PV Modules
DENMARK	0.29	0.15		0.33		0.2		
DJIBOUTI								
ECUADOR	0.4							0.04
EGYPT A RP								
EL SALVADOR								
ESTONIA		0.27						
ETHIOPIA	0.01							
ERITREA	0.02	0.09						
EQU TL GUINEA								
FINLAND								
FIJI IS								
FRANCE	0.07			0.06		0.11		0.16
GABON	0.01							
GAMBIA						0.08		0.06
GEORGIA								
GERMANY	0.11	0.01		0.33		0.17	0.01	0.02
GHANA	0.01					0.03		
GREECE								
GUINEA		0.06		0.01		0.02		0.11
GUINEA BISSAU								
GUYANA				0.3				0.79
HAITI	0.39			0.08		0.14		
HONDURAS								
HONG KONG	0.07							
HUNGARY								
INDONESIA					7.85			
IRAN	0.03			0.12		0.04		
IRAQ								
IRELAND		0.02						
ISRAEL								
ITALY	0.11	0.01	0.01	0.05	0.38	0.08		
JAPAN		0.06		0.12		0.16		0.04
JORDAN								
KAZAKHSTAN								
KENYA	0.05	0.45		0.65		0.7		0.09
KYRGHYZSTAN								
KOREA RP								
KUWAIT	0.02					0.01		0.03
LEBANON	0.14	0.03				0.02		
LIBERIA								
LIBYA				0.01				
LITHUANIA								
LUXEMBOURG								0.16
MADAGASCAR	0.02	0.03				0.02		

Value of Export in USD Millions								
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	Solar PV Cells	Solar PV Modules	Solar PV Cells	Solar PV Modules	Solar PV Cells	Solar PV Modules	Solar PV Cells	Solar PV Modules
MALAWI	0.01	0.01	0.01	0.07	0.02	0		
MALAYSIA			0.14			0.21		
MALDIVES				0.34		0.01		
MALI	0.09	0.03				0		0.08
MALTA								
MAURITANIA				0.05		0.01		
MAURITIUS		0.02		3.34				
MYANMAR								
MEXICO						0.13		0.06
MOROCCO	0.3							
MOZAMBIQUE				0.02		0.25		
NAMIBIA								
NEPAL	0.63	0.25		0.83		0.63		0.08
NETHERLAND			0.01			0.2		
NETHERLANDANTIL						0.02		
NEW ZEALAND								
NICARAGUA								
NIGER								
NIGERIA	2.18	0.12		0.57		0.44		0.03
NORWAY		0.02						
OMAN	0.66	0.45		0.26		0.23		
PANAMA REPUBLIC								
PAKISTAN	0.05			1.58		0.08		
PAPUA N GNA						0.01		0.01
PHILIPPINES	0.03	0.35		0.43		0.1		
POLAND								
PORTUGAL		0.05						
PUERTO RICO						0.34		
TIMOR LESTE				0.03				
QATAR				0.01				
REUNION	0.03			0.17		0.22		0.22
ROMANIA								
RUSSIA								
RWANDA								
SAUDI ARAB		0.24		0.03		0.02		
SENEGAL	0.1	0.04		0.11		0.03		
SEYCHELLES	0.01							
SIERRA LEONE	0.01			0.01				0.02
SLOVAK REP								
SINGAPORE				0.02		0.45		0.17
SLOVENIA								
SOMALIA	0.19	7.77				9.86		
SOUTH AFRICA	0.44	4.55		5.15		4.73		0.12
SPAIN	0.01	0.06		0.14		0.2		0.13

Value of Export in USD Millions								
Country	2021-22		2022-23		2023-24		2024-25 (till Nov 2024)	
	HS Code 8541 4011	HS Code 8541 4012	HS Code 8541 4200	HS Code 8541 4300	HS Code 8541 4200	HS Code 8541 4300	HS Code 8541 4200	HS Code 8541 4300
	Solar PV Cells	Solar PV Modules	Solar PV Cells	Solar PV Modules	Solar PV Cells	Solar PV Modules	Solar PV Cells	Solar PV Modules
SRI LANKA DSR	0.26	0.09		0.19		0.36		0.05
ST VINCENT						0.01		
SUDAN	0.07	0.04				0.01		
SURINAME						0.01		
SOUTH SUDAN								
SWEDEN						0.01		
SWITZERLAND								
SYRIA								
TANZANIA REP	0.03	0.02		0.04		1.24		0.1
THAILAND	0.01		0.11		12.34	0.05	0.47	
TOGO								
TRINIDAD								
TUNISIA								
TURKEY		1.59		3.8	0.08	0.17		0.01
UGANDA	0.28	0.12		0.14		0.29		0.47
U ARAB EMTS	0.4	1.97		5.67		2		0.18
U K	0.05	0.11		0.19		0.1		0.1
UKRAINE								0.01
USA	19.07	60.75	0.02	1000.3	32.77	1939.92	25.09	756.08
UZBEKISTAN								
VENEZUELA								
VIETNAM SOC REP			0.01		0.02			1.18
YEMEN REPUBLC	0.05	0.09						0.1
ZAMBIA	0.09	0.08		0.03		0.04		
ZIMBABWE	0.06			0.01		0.07		
UNSPECIFIED								
<b>TOTAL (USD million)</b>	<b>28.95</b>	<b>83.52</b>	<b>1.12</b>	<b>1031.37</b>	<b>54.67</b>	<b>1969.13</b>	<b>27.32</b>	<b>782.11</b>