

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
STARRED QUESTION NO.122
ANSWERED ON 01.08.2023

MANDATORY PURCHASE OF RENEWABLE ENERGY

122 DR. KANIMOZHI NVN SOMU:

Will the Minister of **Power** be pleased to state:

- (a) whether Government is asking States to mandatorily purchase renewable energy for reducing the Plant Load Factor for existing thermal power projects;
- (b) if so, the details thereof and the reasons therefor;
- (c) whether the Union Government has asked the Government of Tamil Nadu to purchase solar power despite having surplus hydro power generation and if so, the reasons therefor;
- (d) the details of the States which have been given Renewable Purchase Obligation (RPO) targets and their achievements till date, State-wise; and
- (e) the details of penalties imposed for non-compliance of RPOs, State-wise?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) to (e) : A Statement is laid on the Table of the House.

STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) IN RESPECT OF RAJYA SABHA STARRED QUESTION NO.122 FOR REPLY ON 01.08.2023 REGARDING MANDATORY PURCHASE OF RENEWABLE ENERGY ASKED BY DR. KANIMOZHI NVN SOMU.

(a) to (c) : Government of India has been promoting use of various forms of renewable energy to attain the goal of 50 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030.

In furtherance of this objective, the obligations for purchase of Renewable Energy by the States have been prescribed. As per para 6.4(1) of the Tariff policy 2016, the Ministry of Power (MoP) in consultation with Ministry of New and Renewable Energy (MNRE) has to prescribe the long-term growth trajectory of Renewable Purchase Obligations (RPOs). Pursuant to above, the Government has been prescribing RPO from time to time. In the latest order dated 22nd July 2022, the RPO trajectory has been prescribed for the States from 2022-23 until 2029-30. As per the order, the States shall meet a certain percentage of their energy consumption from energy produced from Wind, Hydro, or Other Renewable Power sources. The RPO trajectory as per the afore-stated order is at **Annexure-I**.

The Plant Load Factor (PLF) of a thermal power plant is dependent on several factors including age of the units, past performance, planned outages, availability of fuel, power demand etc. The PLF of the thermal power plants in the country during the year 2022-23 has increased. The PLF of thermal power plants in the country during 2022-23 was 64.15% as compared to 58.91% in 2021-22 indicating a significant increase of 5.24%.

(d) : The RPO trajectory issued by the Government is applicable for all the States in the country including the State of Tamil Nadu. As per the order, any shortfall in Other RPO (which comprises of Solar energy sources among others) in a particular year can be met from excess of Hydro Purchase Obligation for that year. The present status of RPO compliance of States is enclosed at **Annexure-II**.

(e) : The shortfall in RPO can also be met by the obligated entities through purchase of Renewable Energy Certificates. The details of penalty imposed by the State Commission(s) due to non-compliance of RPO are enclosed at **Annexure-III**.

ANNEXURE-I

ANNEXURE REFERRED TO IN PARTS (a) TO (c) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 122 ANSWERED IN THE RAJYA SABHA ON 01.08.2023 REGARDING MANDATORY PURCHASE OF RENEWABLE ENERGY

1. RPO Trajectory beyond 2021-22 as per MoP Order dated 22nd July 2022:

Year	Wind RPO	HPO	Other RPO	Total RPO
2022-23	0.81%	0.35%	23.44%	24.61%
2023-24	1.60%	0.66%	24.81%	27.08%
2024-25	2.46%	1.08%	26.37%	29.91%
2025-26	3.36%	1.48%	28.17%	33.01%
2026-27	4.29%	1.80%	29.86%	35.95%
2027-28	5.23%	2.15%	31.43%	38.81%
2028-29	6.16%	2.51%	32.69%	41.36%
2029-30	6.94%	2.82%	33.57%	43.33%

(a) **Wind RPO** shall be met only by energy produced from Wind Power Projects (WPPs), commissioned after 31st March 2022.

(b) **HPO** shall be met only by energy produced from LHPs (including PSPs), commissioned after 8th March 2019.

(c) **Other RPO** may be met by energy produced from any RE power project not mentioned in (a) and (b) above.

2. Any shortfall remaining in achievement of 'Other RPO' category in a particular year can be met with either the excess energy consumed from WPPs, commissioned after 31st March 2022 beyond 'Wind RPO' for that year or with excess energy consumed from eligible LHPs (including PSPs), commissioned after 8th March 2019 beyond 'HPO' for that year or partly from both. Further, any shortfall in achievement of 'Wind RPO' in a particular year can be met with excess energy consumed from Hydro Power Plants, which is in excess of 'HPO' for that year and vice versa.

ANNEXURE-II

ANNEXURE REFERRED TO IN PART (d) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 122 ANSWERED IN THE RAJYA SABHA ON 01.08.2023 REGARDING MANDATORY PURCHASE OF RENEWABLE ENERGY

Table: Status of RPO compliance in FY 2022-23*

Sl. No.	State	RPO Target as per MoP Order for FY 2022-23				RPO Compliance			
		WPO	HPO	Other RPO	Total RPO	WPO	HPO	Other RPO	Total RPO
1	Chandigarh	0.81%	0.35%	23.44%	24.61%	0.0%	0.0%	76.2%	76.2%
2	Delhi	0.81%	0.35%	23.44%	24.61%	0.0%	0.6%	23.8%	24.4%
3	Haryana	0.81%	0.35%	23.44%	24.61%	0.0%	0.9%	20.8%	21.7%
4	Himachal Pradesh	0.81%	0.35%	23.44%	24.61%	0.0%	2.7%	76.0%	78.7%
5	Jammu Kashmir & Ladakh UT	0.81%	0.35%	23.44%	24.61%	0.0%	0.0%	56.9%	56.9%
6	Punjab	0.81%	0.35%	23.44%	24.61%	0.2%	0.0%	27.3%	27.6%
7	Rajasthan	0.81%	0.35%	23.44%	24.61%	0.0%	0.0%	18.3%	18.3%
8	Uttar Pradesh	0.81%	0.35%	23.44%	24.61%	0.0%	0.4%	14.8%	15.2%
9	Uttarakhand	0.81%	0.35%	23.44%	24.61%	0.0%	3.0%	57.4%	60.4%
10	Chhattisgarh	0.81%	0.35%	23.44%	24.61%	0.1%	1.2%	11.9%	13.3%
11	Daman & Diu and Dadra & Nagar Naveli	0.81%	0.35%	23.44%	24.61%	0.2%	0.4%	2.4%	2.9%
12	Goa	0.81%	0.35%	23.44%	24.61%	0.8%	0.4%	16.1%	17.3%
13	Gujarat	0.81%	0.35%	23.44%	24.61%	3.5%	0.2%	16.5%	20.3%
14	Madhya Pradesh	0.81%	0.35%	23.44%	24.61%	0.1%	0.0%	22.3%	22.4%
15	Maharashtra	0.81%	0.35%	23.44%	24.61%	0.0%	0.0%	17.1%	17.1%
16	Andhra Pradesh	0.81%	0.35%	23.44%	24.61%	3.3%	0.0%	25.1%	28.5%
17	Karnataka	0.81%	0.35%	23.44%	24.61%	6.4%	0.0%	40.3%	46.7%
18	Kerala	0.81%	0.35%	23.44%	24.61%	0.0%	0.0%	36.3%	36.3%
19	Lakshadweep	0.81%	0.35%	23.44%	24.61%	0.0%	0.0%	0.2%	0.2%
20	Puducherry	0.81%	0.35%	23.44%	24.61%	0.0%	0.0%	6.6%	6.6%

21	Tamil Nadu	0.81%	0.35%	23.44%	24.61%	5.8%	0.0%	19.7%	25.5%
22	Telangana	0.81%	0.35%	23.44%	24.61%	0.0%	0.0%	20.2%	20.2%
23	Andaman & Nicobar	0.81%	0.35%	23.44%	24.61%	0.0%	0.0%	10.9%	10.9%
24	Bihar	0.81%	0.35%	23.44%	24.61%	0.1%	0.1%	15.9%	16.0%
25	DVC	0.81%	0.35%	23.44%	24.61%	0.0%	0.0%	10.6%	10.6%
26	Jharkhand	0.81%	0.35%	23.44%	24.61%	0.0%	0.0%	30.0%	30.0%
27	Odisha	0.81%	0.35%	23.44%	24.61%	0.1%	0.1%	25.3%	25.4%
28	Sikkim	0.81%	0.35%	23.44%	24.61%	0.0%	3.7%	84.7%	88.4%
29	West Bengal	0.81%	0.35%	23.44%	24.61%	0.1%	0.0%	15.9%	15.9%
30	Arunachal Pradesh	0.81%	0.35%	23.44%	24.61%	0.0%	3.5%	15.3%	18.8%
31	Assam	0.81%	0.35%	23.44%	24.61%	0.0%	2.7%	20.4%	23.2%
32	Manipur	0.81%	0.35%	23.44%	24.61%	0.0%	0.2%	33.8%	34.0%
33	Meghalaya	0.81%	0.35%	23.44%	24.61%	0.0%	3.2%	56.7%	59.9%
34	Mizoram	0.81%	0.35%	23.44%	24.61%	0.3%	0.4%	42.1%	42.7%
35	Nagaland	0.81%	0.35%	23.44%	24.61%	0.0%	5.2%	31.3%	36.5%
36	Tripura	0.81%	0.35%	23.44%	24.61%	0.0%	0.1%	13.5%	13.6%

* Provisional

ANNEXURE-III

ANNEXURE REFERRED TO IN PART (e) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 122 ANSWERED IN THE RAJYA SABHA ON 01.08.2023 REGARDING MANDATORY PURCHASE OF RENEWABLE ENERGY

Sl. No.	State ERC	Penalty imposed on RPO non-compliance																											
1.	Delhi ERC	<p>The penalty imposed on Delhi Distribution Licensees for Non-compliance to RPO Targets from FY 2017-18 to FY 2019-20 are as follows:</p> <table><tr><th rowspan="2">DISCOMs</th><th colspan="3">RPO Penalty (Rs. Cr.)</th></tr><tr><th>FY 2017-18</th><th>FY 2018-19</th><th>FY 2019-20</th></tr><tr><td>BRPL</td><td>9.47</td><td>8.89</td><td>14.62</td></tr><tr><td>BYPL</td><td>6.24</td><td>7.22</td><td>8.97</td></tr><tr><td>TPDDL</td><td>0.00</td><td>3.16</td><td>2.75</td></tr><tr><td>NDMC</td><td>0.28</td><td>0.34</td><td>0.63</td></tr><tr><td>Total RPO Penalty</td><td>15.99</td><td>19.61</td><td>26.97</td></tr></table>	DISCOMs	RPO Penalty (Rs. Cr.)			FY 2017-18	FY 2018-19	FY 2019-20	BRPL	9.47	8.89	14.62	BYPL	6.24	7.22	8.97	TPDDL	0.00	3.16	2.75	NDMC	0.28	0.34	0.63	Total RPO Penalty	15.99	19.61	26.97
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