

**GOVERNMENT OF INDIA  
MINISTRY OF POWER  
LOK SABHA  
UNSTARRED QUESTION NO.23  
ANSWERED ON 02.02.2023**

**PRODUCTION AND USAGE OF RENEWABLE SOURCES OF ENERGY**

**23. SHRI SANJAY SADASHIVRAO MANDLIK:  
SHRI BIDYUT BARAN MAHATO:  
SHRI SHRIRANG APPA BARNE:  
SHRI PRATAPRAO JADHAV:  
SHRI SUDHEER GUPTA:  
SHRI DHAIRYASHEEL SAMBAJIRAO MANE:**

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

- (a) the details of the total distribution of energy through various sources of energy in the country;**
- (b) the details of the region which has the least share in production and usage of renewable sources of energy in the country, State/UT-wise;**
- (c) the details of the value of total exports to other countries in terms of both renewable and non-renewable energy;**
- (d) the details of share and income generated from exports during each of the last three years, country-wise;**
- (e) whether any efforts have been made by the Bureau of Energy Efficiency (BEE) to harmonize energy efficiency standards for appliances with countries such as the EU and the USA and if so, the details thereof; and**
- (f) whether the Government proposes to harmonize standards which would facilitate better trade and if so, the details thereof?**

**A N S W E R**

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

**(SHRI R.K. SINGH)**

**(a) : The details of electricity generation through various sources of energy in the country during the last year & current year 2022-23 (upto December, 2022) are given at Annexure-I.**

**(b) : North-East Region has least share in production of renewable sources of Energy in the country. The details of region-wise and State-wise electricity production from renewable sources & its share of production during the last year & current year 2022-23 (upto December, 2022) are given at Annexure-II.**

**(c) & (d) : The details of net export/ import of electricity by Indian entities during last three years& current year 2022-23 (upto December, 2022) are given at Annexure-III. Import/Export of electricity is done purely on commercial terms by buying and selling entities and Ministry of Power does not maintain any data regarding value of total exports to other countries as well as classification of power in terms of renewable and non-renewable.**

**(e) & (f) : Bureau of Energy Efficiency (BEE) has explored the possibility of harmonizing the standards for Room Air conditioners with countries such as European Union (EU) and United States of America (USA). It has been noted that the test conditions regarding temperature range for calculating Energy Efficiency for these countries are found to be different based on its weather and climatic conditions.**

**Further, it is also noted that the annual operating hours for each country is different. In view of the above, the harmonisation process of energy efficiency standards for Room Air Conditioner in India with EU and USA could not be taken further.**

**However, BEE has raised energy efficiency level for appliances over the years.**

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**ANNEXURE-I**

**ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 23 ANSWERED IN THE LOK SABHA ON 02.02.2023**

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**The details of electricity generation through various sources of energy in the country during the last year& current year 2022-23 (upto December, 2022).**

Category	Fuel	Monitored Capacity as on 31.12.2022 MW	Generation (MU)	
			2021-22	2022-23 (up to December, 2022)
<b>THERMAL</b>	<b>COAL</b>	<b>203985.5</b>	<b>1041487.4</b>	<b>846570.89</b>
	<b>LIGNITE</b>	<b>6620</b>	<b>37094.04</b>	<b>26998.82</b>
	<b>NATURAL GAS</b>	<b>23857.63</b>	<b>36015.7</b>	<b>18384.22</b>
	<b>DIESEL</b>	<b>589.2</b>	<b>117.24</b>	<b>134.9</b>
	<b>HIGH SPEED DIESEL</b>	<b>255</b>	<b>0</b>	<b>0</b>
	<b>NAPHTHA</b>	<b>701.58</b>		<b>0.83</b>
<b>THERMAL TOTAL</b>		<b>236008.91</b>	<b>1114714.38</b>	<b>892089.66</b>
<b>NUCLEAR</b>		<b>6780</b>	<b>47112.06</b>	<b>33920.02</b>
<b>HYDRO(LARGE)</b>	<b>HYDRO</b>	<b>46850.17</b>	<b>151627.33</b>	<b>137903.61</b>
<b>IMPORT FROM BHUTAN</b>	<b>HYDRO</b>		<b>7493.2</b>	<b>6653.2</b>
<b>TOTAL (Thermal, Nuclear, Large Hydro &amp; Import) "A"</b>		<b>289639.08</b>	<b>1320946.97</b>	<b>1070566.49</b>
<b>Renewable (Excl. large Hydro) "B"</b>		<b>120848.3</b>	<b>170912.3</b>	<b>153052.71</b>
<b>Grand Total ( A+B)</b>		<b>410487.38</b>	<b>1491859.27</b>	<b>1223619.20</b>

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**ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 23  
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The details of Region-wise and State-wise electricity production from renewable sources & its share of production during the last year& current year 2022-23 (upto December, 2022).

Region	State	Generation(MU)	% of Share	Generation(MU)	% of Share
		2022-23 (upto December, 2022)		2021-22	
Northern Region (NR)	Chandigarh	9.03	0.00	14.19	0.00
	DELHI	382.91	0.13	458.733451	0.14
	HARYANA	1113.53	0.37	1135.41922	0.34
	HIMACHAL PRADESH	37093.49	12.46	38503.3969	11.67
	JAMMU AND KASHMIR	14760.23	4.96	17489.8314	5.30
	LADAKH	359.84	0.12	405.98	0.12
	PUNJAB	6339.81	2.13	6951.884131	2.11
	RAJASTHAN	31057.32	10.44	24581.15389	7.45
	UTTAR PRADESH	5174.55	1.74	7731.61703	2.34
UTTARAKHAND	13877.82	4.66	15204.45	4.61	
<b>NR TOTAL</b>		<b>110168.53</b>	<b>37.02</b>	<b>112476.66</b>	<b>34.08</b>
Western Region (WR)	CHHATTISGARH	1563.99	0.53	2342.338392	0.71
	Dadra and Nagar Haveli	26.39	0.01	49.161911	0.01
	Daman & Diu	0.00	0.00	47.668342	0.01
	GOA	14.15	0.00	16.822	0.01
	GUJARAT	27469.45	9.23	27461.03868	8.32
	MADHYA PRADESH	12738.21	4.28	13403.4538	4.06
	MAHARASHTRA	17120.85	5.75	21853.0172	6.62
<b>WR TOTAL</b>		<b>58933.04</b>	<b>19.80</b>	<b>65173.50</b>	<b>19.75</b>
Southern Region (SR)	ANDHRA PRADESH	15846.04	5.32	18776.43615	5.69
	KARNATAKA	31861.90	10.71	42570.73521	12.90
	KERALA	8078.00	2.71	10932.064	3.31
	Lakshadweep	0.08	0.00	0.303539	0.00
	PUDUCHERRY	9.18	0.00	12.24	0.00
	TAMIL NADU	27222.61	9.15	29273.35457	8.87
TELANGANA	10898.90	3.66	12972.5212	3.93	
<b>SR TOTAL</b>		<b>93916.72</b>	<b>31.56</b>	<b>114537.65</b>	<b>34.70</b>
Eastern Region (ER)	ANDAMAN NICOBAR	29.52	0.01	34.770515	0.01
	BIHAR	172.46	0.06	239.8317165	0.07
	JHARKHAND	296.36	0.10	576.665427	0.17
	ODISHA	5377.92	1.81	6311.733649	1.91
	SIKKIM	10868.13	3.65	11506.25496	3.49
WEST BENGAL	4368.65	1.47	5034.929042	1.53	
<b>ER TOTAL</b>		<b>21113.04</b>	<b>7.09</b>	<b>23704.19</b>	<b>7.18</b>
North Eastern Region (NER)	ARUNACHAL PRADESH	4308.87	1.45	4163.41	1.26
	ASSAM	639.79	0.21	798.343799	0.24
	MANIPUR	452.73	0.15	462.202	0.14
	MEGHALAYA	948.15	0.32	886.4969752	0.27
	MIZORAM	203.98	0.07	165.5339456	0.05
	NAGALAND	266.53	0.09	164.0245	0.05
TRIPURA	4.95	0.00	7.619388478	0.00	
<b>NER TOTAL</b>		<b>6825.00</b>	<b>2.29</b>	<b>6647.63</b>	<b>2.01</b>
<b>TOTAL</b>		<b>290956.34</b>	<b>97.76</b>	<b>322539.63</b>	<b>97.73</b>
<b>IMPORT</b>	Bhutan (IMP)	6653.20	2.24	7493.2	2.27
<b>GRAND TOTAL</b>		<b>297609.54</b>	<b>100.00</b>	<b>330032.83</b>	<b>100.0</b>

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**ANNEXURE REFERRED TO IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO. 23 ANSWERED IN THE LOK SABHA ON 02.02.2023**

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**The details of net export/ import of electricity by Indian entities during last three years & current year 2022-23 (upto December, 2022).**

	<b>Bhutan</b>	<b>Nepal</b>	<b>Bangladesh</b>	<b>Myanmar</b>
<b>Year 2022-23 (April, 2022 to December, 2022)</b>	<b>6571.21 MU Import</b>	<b>785.64 MU Import</b>	<b>6577.4 MU Export</b>	<b>7.58 MU Export</b>
<b>Year 2021-22</b>	<b>7596.71 MU Import</b>	<b>1921.09 MU Export</b>	<b>7301.74 MU Export</b>	<b>8.8 MU Export</b>
<b>Year 2020-21</b>	<b>9318.17 MU Import</b>	<b>1865.05 MU Export</b>	<b>7551.99 MU Export</b>	<b>9.24 MU Export</b>
<b>Year 2019-20</b>	<b>6310.73 MU Import</b>	<b>2373.06 MU Export</b>	<b>6987.94 MU Export</b>	<b>8.61 MU Export</b>

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