

**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.2338  
ANSWERED ON 03.08.2023**

**PUMPED STORAGE HYDRO PROJECTS**

**2338. SHRI RAVNEET SINGH BITTU:**

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

- (a) the total number of storage hydro projects presently operational, under construction and those allotted by States and are under different stages of development, State/UT-wise and especially in the State of Punjab;**
- (b) whether the Government proposes to have tax exemptions, green clearances for pumped storage hydro projects in the country and if so, the details thereof;**
- (c) the details of the measures being taken by the Government to ease the issues like cumbersome environmental and forest clearances being faced by the pumped storage hydro-power projects in the country;**
- (d) whether the proposed incentives would help to promote pumped storage hydro-power projects in the country as well as attract foreign participation therein; and**
- (e) if so, the details thereof and if not, the reasons therefor?**

**A N S W E R**

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

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

**(a): At present, 212 hydroelectric projects, with an aggregate Installed Capacity of 46.8 GW including 8 Pumped Storage Projects of about 4.7 GW, are in operation in the country. The details of Storage Hydro Projects (including Pumped Storage Projects) presently operational, under construction and those allotted by States under different stages of development, State/UT-wise, including in the State of Punjab are given at Annexure.**

**(b): Ministry of Power, Government of India has notified guidelines on 10<sup>th</sup> April, 2023 to promote development of Pumped Storage Projects (PSPs) in the country, wherein, inter-alia, it has been stated that Electricity Duty (ED) and Cross Subsidy Surcharge (CSS) shall not be applicable on pumping power for charging of PSPs. Further, State Governments have been advised to consider reimbursement of SGST on PSP components and exemption of stamp duty and registration fees on the land acquired for off-the-river PSPs.**

**(c) : Ministry of Environment, Forest and Climate Change (MoEF&CC), vide notification dated 18.05.2023 has amended the Environmental Impact Assessment (EIA) Notification 2006 to ease the process of Environment Clearances for PSPs. As per the said notification:**

- (i) Standalone Pumped Storage Projects have been categorized as a separate category under River Valley and Hydroelectric Projects.**
- (ii) Pumped Storage Projects including off-stream closed loop shall be appraised based on specific Terms of Reference issued by the Central Government for Pumped Storage Projects.**
- (iii) Pumped Storage Projects which meet all the criteria specified below shall be appraised as B2 category irrespective of power generation capacity:**
  - (a) Projects which do not attract Forest Clearance and/or Wild Life Clearance.**
  - (b) Projects wherein no new Reservoir is created.**
  - (c) The Projects wherein there is no increase in capacity of the existing reservoir and in submergence area of reservoir.**

**MoEF&CC has also Notified Forest Conservation Rules, 2022 on 28.06.2022 and Guidelines for Accredited Compensatory Afforestation on 24.01.2023 to streamline the Forest Clearance process.**

**(d) & (e) : The proposed incentives would help promote pumped storage hydropower projects in the country.**

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**ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2338 ANSWERED IN THE LOK SABHA ON 03.08.2023**

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**State/UT-wise details of Storage Hydro Projects (including Pumped Storage Projects) presently operational, under construction and those allotted by States under different stages of development**

State	Conventional Storage Projects		Pumped Storage Projects		Total	
	Nos.	MW	Nos.	MW	Nos.	MW
<b>I. Storage Hydro Projects (including PSPs) Presently Operational</b>						
Himachal Pradesh	5	3133	0	0	5	3133
Punjab	1	600	0	0	1	600
Rajasthan	2	222	0	0	2	222
Uttarakhand	2	1198	0	0	2	1198
Uttar Pradesh	3	430	0	0	3	430
Madhya Pradesh	7	1890	0	0	7	1890
Maharashtra	8	2153	2	400	10	2553
Chhattisgarh	1	120	0	0	1	120
Jharkhand	2	145	0	0	2	145
Gujarat	1	300	2	1440	3	1740
Andhra Pradesh	4	1560	0	0	4	1560
Karnataka	13	2947	0	0	13	2947
Kerala	12	1634	0	0	12	1634
Telangana	2	146	2	1606	4	1752
Tamil Nadu	18	1538	1	400	19	1938
Odisha	6	2083	0	0	6	2083
West Bengal	1	63	1	900	2	963
Assam	2	250	0	0	2	250
Manipur	1	105	0	0	1	105
Mizoram	1	60	0	0	1	60
Nagaland	1	75	0	0	1	75
Meghalaya	1	36	0	0	1	36
<b>Total</b>	<b>94</b>	<b>20688</b>	<b>8</b>	<b>4746</b>	<b>102</b>	<b>25434</b>
<b>II. Storage Hydro Projects (including PSPs) Under Construction</b>						
Uttarakhand	1	300	1	1000	2	1300
Jammu & Kashmir	1	1000	0	0	1	1000
Maharashtra	0	0	1	80	1	80
Andhra Pradesh	1	960	1	1200	2	2160
Tamil Nadu	0	0	1	500	1	500
Arunachal Pradesh	1	2880	0	0	1	2880
<b>Total</b>	<b>4</b>	<b>5140</b>	<b>4</b>	<b>2780</b>	<b>8</b>	<b>7920</b>

State	Conventional Storage Projects		Pumped Storage Projects		Total	
	Nos.	MW	Nos.	MW	Nos.	MW
<b>III. Storage Hydro Projects (including PSPs) allotted by States and under different stages of development</b>						
<b>(a) Concurred by CEA (not yet taken up for construction)</b>						
<b>Andhra Pradesh</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1350</b>	<b>1</b>	<b>1350</b>
<b>Arunachal Pradesh</b>	<b>1</b>	<b>186</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>186</b>
<b>West Bengal</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1000</b>	<b>1</b>	<b>1000</b>
<b>Total</b>	<b>1</b>	<b>186</b>	<b>2</b>	<b>2350</b>	<b>3</b>	<b>2536</b>
<b>(b) Under Survey &amp; Investigation (S&amp;I)</b>						
<b>Ladakh</b>	<b>1</b>	<b>95</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>95</b>
<b>Jammu &amp; Kashmir</b>	<b>2</b>	<b>996</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>996</b>
<b>Uttarakhand</b>	<b>1</b>	<b>660</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>660</b>
<b>Rajasthan</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>5560</b>	<b>3</b>	<b>5560</b>
<b>Uttar Pradesh</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>5340</b>	<b>2</b>	<b>5340</b>
<b>Madhya Pradesh</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4565</b>	<b>4</b>	<b>4565</b>
<b>Maharashtra</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>12100</b>	<b>8</b>	<b>12100</b>
<b>Jharkhand</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1500</b>	<b>1</b>	<b>1500</b>
<b>Odisha</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1420</b>	<b>3</b>	<b>1420</b>
<b>Andhra Pradesh</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>15800</b>	<b>15</b>	<b>15800</b>
<b>Karnataka</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3560</b>	<b>3</b>	<b>3560</b>
<b>Kerala</b>	<b>1</b>	<b>800</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>800</b>
<b>Arunachal Pradesh</b>	<b>1</b>	<b>11200</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>11200</b>
<b>Meghalaya</b>	<b>1</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>60</b>
<b>Total</b>	<b>7</b>	<b>13811</b>	<b>39</b>	<b>49845</b>	<b>46</b>	<b>63656</b>

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