

GOVERNMENT OF INDIA  
MINISTRY OF POWER

**RAJYA SABHA**  
**UNSTARRED QUESTION NO.791**  
**ANSWERED ON 02.12.2024**

**INITIATIVES TO HARNESS HYDRO POTENTIAL**

**791 DR. DHARMASTHALA VEERENDRA HEGGADE:**  
**SHRI SANT BALBIR SINGH:**

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

- (a) whether Government has taken any initiative to harness the hydro potential including the hydro pumped storage potential and if so, the details thereof;
- (b) the exploitable large hydro potential and the identified pumped storage potential in the country, State-wise; and
- (c) the number of hydro electric projects in the country whose Detailed Project Reports (DPRs) have been concurred by the Central Electricity Authority, during the last five years along with the number of DPRs under preparation, State-wise?

**A N S W E R**

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

- (a) :** The Government of India has taken various initiatives to harness the hydro-power potential including the hydro pumped storage potential viz :-
- i. Declaring large hydropower projects (capacity above 25 MW) as renewable energy source.
  - ii. Hydro Renewable Energy Consumption Obligation by Designated Consumers.
  - iii. Tariff rationalization measures for bringing down hydropower tariff.
  - iv. Budgetary support for Flood Moderation/Storage hydroelectric projects.
  - v. Budgetary support towards cost of enabling infrastructure, i.e. roads, bridges, ropeways, railway siding, communication infrastructure and Transmission Line from power house to the nearest pooling point, including upgradation of polling substations of State or Central Transmission Utility.
  - vi. Guidelines to promote development of Pumped Storage Projects (PSPs) in the country was issued on 10<sup>th</sup> April, 2023.
  - vii. Waiver of Inter State Transmission System (ISTS) charges for hydroelectric projects and PSPs.

- viii. Central Financial Assistance (CFA) to the State Governments of North Eastern Region (NER) towards their equity participation for development of Hydro Electric Projects in the NER through Joint Venture collaboration between State entities and Central Public Sector Undertakings.
- ix. Reduction of timeline by Central Electricity Authority (CEA) for concurrence of Detailed Project Reports (DPR) of hydroelectric projects and PSPs.

**(b) :** As per the study carried out by CEA during the period 2017-2023, the exploitable large hydro potential in the country is about 133.4 Giga Watt (GW). Further, the identified pumped storage potential is about 181.4 GW. The State / UT-wise details are at **Annexure-I**.

**(c) :** CEA has concurred 11 Hydroelectric (H.E.) schemes including PSPs with an aggregate installed capacity of 9,048 MW during the last five years. The State/UT-wise details are at **Annexure-II**. Further, 11 H.E. Schemes aggregating to 8,036 MW and 44 PSPs aggregating to 60,050 MW are under Survey & Investigation (S&I) for preparation of Detailed Project Report. The State / UT-wise details are at **Annexure-III**.

\*\*\*\*\*

ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO.791  
ANSWERED IN THE RAJYA SABHA ON 02.12.2024

\*\*\*\*\*

**State / UT-wise details of Exploitable Potential of Hydro and Identified Potential of Pumped Storage (capacity above 25 MW)**

**(Figures in MW)**

Region/State/UT	Exploitable Conventional Hydro Potential	Identified Pumped Storage Potential
<b>Northern Region (NR)</b>		
Jammu & Kashmir	12264	-
Ladakh	707	-
Himachal Pradesh	18305	7260
Punjab	1301	-
Haryana	-	-
Rajasthan	411	9200
Uttarakhand	13481	1000
Uttar Pradesh	502	16620
Sub Total (NR)	46971	34080
<b>Western Region (WR)</b>		
Madhya Pradesh	2819	8560
Chhattisgarh	1311	8525
Gujarat	550	7700
Maharashtra	3144	43405
Goa	-	-
Sub Total (WR)	7824	68190
<b>Southern Region (SR)</b>		
Andhra Pradesh	2596	26420
Telangana	1302	8755
Karnataka	4414	7600
Kerala	2473	1200
Tamil Nadu	1785	16500
Sub Total (SR)	12570	60475
<b>Eastern Region</b>		
Jharkhand	300	1500
Bihar	130	-
Odisha	2825	5075
West Bengal	809	5500
Sikkim	6051	-
Sub Total (ER)	10115	12075
<b>North Eastern Region (NER)</b>		
Meghalaya	2026	-
Tripura	-	-
Manipur	615	-
Assam	643	320
Nagaland	325	-
Arunachal Pradesh	50394	660
Mizoram	1927	5550
Sub Total (NER)	55930	6530
<b>Total (ALL INDIA)</b>	<b>1,33,410</b>	<b>1,81,350</b>

Note: Exploitable/Identified Potential is subject to change due to addition/deletion and change in Installed capacity of some projects.

\*\*\*\*\*

## ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO.791  
ANSWERED IN THE RAJYA SABHA ON 02.12.2024

\*\*\*\*\*

State/UT-wise number of Hydro Electric (H.E.) Schemes including Pumped Storage Projects (PSPs) concurred by CEA during last five years

Sl. No.	Name of the HE Scheme	Sector	Developer	Installed Capacity (MW)	Date of concurrence
<b>Andhra Pradesh</b>					
1	Pinnapuram (PSP)	Private	Greenko Energies Pvt. Ltd.	1200	20.04.2022
2	Upper Sileru (PSP)	State	APGENCO	1350	13.06.2023
<b>Himachal Pradesh</b>					
3	Sunni Dam	Central	SJVNL	382	11.02.2021
4	Thana Plaun	State	HPPCL	191	07.09.2021
5	Dugar	Central	NHPC	500	26.04.2022
<b>Jammu &amp; Kashmir</b>					
6	Uri-I Stage-II	Central	NHPC	240	07.03.2023
<b>Maharashtra</b>					
7	Bhivpuri (PSP)	Private	TATA Power	1000	30.09.2024
8	Bhavali (PSP)	Private	JSW Energy	1500	24.09.2024
<b>Meghalaya</b>					
9	Wah-Umum Stage-III	Central	NEEPCO	85	26.07.2021
<b>Odisha</b>					
10	Upper Indravati (PSP)	State	OHPC	600	30.08.2024
<b>Karnataka</b>					
11	Sharavathy (PSP)	State	KPCL	2000	09.09.2024
<b>Total</b>				<b>9048</b>	

\*\*\*\*\*

**ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO.791  
ANSWERED IN THE RAJYA SABHA ON 02.12.2024**

\*\*\*\*\*

**State/UT-wise details of Hydro Electric Schemes for which Detailed Project Reports (DPRs) are under preparation**

**1. Hydro Electric (H.E.) Schemes**

<b>Sl. No.</b>	<b>Name of Scheme</b>	<b>Installed Capacity (MW)</b>
<b>Jammu &amp; Kashmir (J&amp;K)</b>		
1	Dulhasti Stage-II	260
<b>Sub Total (J&amp;K)</b>		<b>260</b>
<b>Arunachal Pradesh</b>		
2	Demwe Upper St-I	270
3	Niare	909
4	Naba	1082
5	Anjaw	270
6	Oju	2220
7	Subansiri Upper	1605
8	Kurung	320
<b>Sub Total (Arunachal Pradesh)</b>		<b>6676</b>
<b>Meghalaya</b>		
9	MyntduLeshka Stage-II	210
<b>Sub Total (Meghalaya)</b>		<b>210</b>
<b>West Bengal</b>		
10	Teesta Intermediate	90
<b>Sub Total (West Bengal)</b>		<b>90</b>
<b>Kerala</b>		
11	Idukki Extension Scheme	800
<b>Sub Total (Kerala)</b>		<b>800</b>
<b>Total</b>		<b>8,036</b>

## 2. Pumped Storage Projects (PSPs)

Sl. No.	Name of Scheme	Installed Capacity (MW)
<b>Rajasthan</b>		
1	Sukhpura Off-Stream	2560
2	Shahpur	1800
3	Sirohi	1200
4	Brahmani	600
<b>Sub Total (Rajasthan)</b>		<b>6160</b>
<b>Uttar Pradesh</b>		
5	Kandhaura	1680
6	Musakhand	600
7	UP01	3660
8	Shoma	2400
9	Jhariya	1620
10	Chichlik	1560
11	Panaura	1500
<b>Sub Total (Uttar Pradesh)</b>		<b>13020</b>
<b>Odisha</b>		
12	Balimela PSP	500
<b>Sub Total (Odisha)</b>		<b>500</b>
<b>Gujarat</b>		
13	Serula	960
14	Juni Kayaliwel	300
15	Amalpada	300
<b>Sub Total (Gujarat)</b>		<b>1560</b>
<b>Madhya Pradesh</b>		
16	Indira Sagar	640
17	MP30 Gandhi Sagar	1920
<b>Sub Total (Madhya Pradesh)</b>		<b>2560</b>
<b>Chhattisgarh</b>		
18	Hasdeo Bango	800
19	Bilaspur	1000
<b>Sub Total (Chhattisgarh)</b>		<b>1800</b>

<b>Maharashtra</b>		
20	Pane	1500
21	Tarali	1500
22	Malshej Ghat Bhorande	1500
23	Shirwata	1800
24	Warasgaon Warangi	1500
25	Koyna Nivakane	2700
26	Nayagaon	2000
27	Karjat (Saidongar-1)	3000
28	Maval (Saidongar-2)	1200
<b>Sub Total (Maharashtra)</b>		<b>16700</b>
<b>Andhra Pradesh</b>		
29	Gandikota	1000
30	Chitravathi	500
31	Somasila	900
32	Owk	800
33	Paidipalem East	1200
34	Singanamala	800
35	Paidipalem North	1000
36	Veeraballi Off-Stream	1800
37	Vempalli	1500
38	Raiwada	900
39	Kamalapadu	950
40	Rayavaram	1500
41	Gadikota	1200
42	Pedakota	1800
<b>Sub Total (Andhra Pradesh)</b>		<b>15850</b>
<b>Karnataka</b>		
43	Saundatti	1600
44	Narihalla	300
<b>Sub Total (Karnataka)</b>		<b>1900</b>
<b>Total</b>		<b>60050</b>

\*\*\*\*\*