

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2905
TO BE ANSWERED ON 05.12.2019**

HYDRO POWER GENERATION

2905. SHRI HEMANT SRIRAM PATIL:

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

- (a) the details of potential capacity of Hydro Power generation that can be produced in the country;**
- (b) whether the Government has failed to produce energy to its full capacity from Hydro Power in the country despite its huge potential, if so, the details thereof and the reasons therefor;**
- (c) whether the Government has assessed the Hydro Power Generation potential and its potential locations and if so, the details thereof;**
- (d) whether the Government proposes to formulate such a policy and if so, the details thereof; and**
- (e) the other steps taken by the Government to boost production of Hydro Power?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (c): The total assessed hydro power potential in the country is 1,66,454 MW, which comprises of:

Category	Potential (MW)	Basis
Large Hydropower Projects (projects of capacity more than 25 MW)	1,45,320	Reassessment study done by CEA during 1978-1987.
Small Hydropower Projects (projects of capacity upto 25 MW)	21,134	Small hydropower data-base (July 2016), prepared by Alternate Hydro Energy Centre (AHEC), IIT Roorkee.

A Table showing state-wise hydro power potential is enclosed as Annexure.

Large hydropower projects of cumulative capacity of 40613 MW (27.95% of potential) (excluding Pumped Storage Projects) have been installed so far. In small hydro sector, a cumulative capacity of 4647 MW (21.98% of total potential) has been installed. The slow pace of small hydropower can largely be attributed to delay in getting forest clearances, and geological and hydrological uncertainties, etc. In large hydro sector, difficult terrain, interstate disputes, rehabilitation and resettlement issues, higher capital costs resulting in higher tariffs, long gestation period, delay in getting environmental clearance are the major factors which have resulted into slow growth.

(d) & (e) : To accelerate tapping potential of large hydropower in the country, the Government, inter-alia, has taken the following measures:

- (i) Hydropower projects of capacity more than 25 MW have also been declared as renewable energy source.**
- (ii) Hydropower Purchase Obligation (HPO) has been notified as separate entity within Non-Solar Renewable Purchase Obligation (RPO).**
- (iii) Tariff rationalization measures for bringing down hydropower tariff including providing flexibility to the developers to determine tariff by back loading of tariff after increasing project life to 40 years, increasing debt repayment period to 18 years and introducing escalating tariff.**
- (iv) Budgetary support for flood moderation/ storage hydroelectric projects.**
- (v) Budgetary support to cost of enabling infrastructure i.e. roads/bridges.**

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 2905 TO BE ANSWERED IN THE LOK SABHA ON 05.12.2019.

Region/State	Identified Potential	
	Small Hydropower projects (projects of capacity upto 25 MW)	Large Hydropower Projects (projects of capacity more than 25 MW) (excluding pumped hydro)
Northern		
Jammu & Kashmir and Ladakh	1707.45	13543
Himachal Pradesh	3460.34	18540
Punjab	578.28	971
Haryana	107.24	64
Rajasthan	51.64	483
Uttarakhand	1664.31	17998
Uttar Pradesh	460.75	664
Sub Total	8030.01	52263
Western		
Madhya Pradesh	820.44	1970
Chhattisgarh	1098.20	2202
Gujarat	201.97	590
Maharashtra	786.46	3314
Goa	4.70	55
Sub Total	2911.77	8131
Southern		
Andhra Pradesh	409.32	2341
Telangana	102.25	2019
Karnataka	3726.59	6459
Kerala	647.15	3378
Tamil Nadu	604.46	1693
A&N Islands	7.27	0
Sub Total	5497.04	15890
Eastern		
Jharkhand	227.96	582
Bihar	526.98	40
Odisha	286.22	2981
West Bengal	392.06	2829
Sikkim	266.64	4248
Sub Total	1699.86	10680
North Eastern		
Meghalaya	230.05	2298
Tripura	46.86	0
Manipur	99.95	1761
Assam	201.99	650
Nagaland	182.18	1452
Arunachal Pradesh	2064.92	50064
Mizoram	168.99	2131
Sub Total	2994.94	58356
All India	21133.62	145320
