

GOVERNMENT OF INDIA
MINISTRY OF POWER
RAJYA SABHA
UNSTARRED QUESTION NO.1117
ANSWERED ON 26.07.2022

POTENTIAL FOR HYDRO POWER GENERATION

1117 SHRI SANJAY RAUT:

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

- (a) whether Government has assessed the potential of States which are capable of generating hydro power;
- (b) if so, the details thereof along with the reasons for failure of Government to harness the potential;
- (c) whether various hydro power projects allotted to the private sector in various States are yet to take off, and if so, the details thereof along with the reasons for delay, project-wise; and
- (d) the other steps taken by Government for the completion of hydro power projects in a time bound manner in the country?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) & (b) : Central Electricity Authority (CEA), a technical body, under Ministry of Power, Government of India has carried out study for assessment of potential of hydro power development in the country during the period 1978-1987. As per the study, the power potential of large hydro-electric projects (above 25 MW capacity) in the country is 145320 MW. The state-wise details of hydro power potential in India is enclosed at **Annexure-I**.

The total installed capacity of hydro-electric projects (above 25 MW) is 46850.15 MW as on 30.06.2022. In addition, 36 hydro-electric projects (above 25 MW), with capacity of 14103.5 MW are under construction. A summary of the projects is enclosed at **Annexure-II**.

The main challenges involved in harnessing the potential of hydro power in country are as under:-

- I. Land Acquisition Issues
- II. Environment and Forest issues
- III. Rehabilitation & Resettlement Issues
- IV. Inadequate Infrastructural facilities
- V. Law & Order / Local issues
- VI. Geological Surprises
- VII. Natural Calamities
- VIII. Inter-state Issues

(c) : As on 30.06.2022, 10 Nos. of Hydro Projects concurred by CEA, which have been allotted to private sector are yet to be taken up for construction for various reasons. Details are enclosed at **Annexure-III**.

(d) : For the completion of hydro power projects in a time bound manner, Ministry of Power has issued comprehensive guidelines to reduce time and cost overruns in Hydro Power Projects on 08.11.2019. Ministry of Power has also notified a “Dispute Avoidance Mechanism” through 'Independent Engineer (IE)’ on 29.09.2021 and “Dispute Resolution Mechanism” through “Conciliation Committee of Independent Experts (CCIE)” on 29.12.2021 to expeditiously and effectively address contractual disputes, which have been identified as one of the major reasons impacting timely completion of Hydro Power Projects. Stalled hydro projects in Arunachal Pradesh, have also been indicated against various Hydro CPSEs of Ministry of Power vide letter dated 22.12.2021 for timely completion.

Further, CEA monitors the progress of under construction projects through site visits and interaction with the developers and other stakeholders. Regular reviews are also undertaken in the Ministry of Power to identify constraints and facilitate faster resolution of inter-ministerial and other outstanding issues which are critical for commissioning of the project.

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 1117 ANSWERED IN THE RAJYA SABHA ON 26.07.2022

STATE-WISE POTENTIAL FOR LARGE HYDRO POWER IN THE COUNTRY

Region/ State	Identified Capacity above 25 MW as per Reassessment Study (1978-87)
NORTHERN REGION (NR)	
Jammu & Kashmir	11567
Ladakh	2046
Himachal Pradesh	18470
Punjab	971
Haryana	64
Rajasthan	483
Uttarakhand	17998
Uttar Pradesh	664
Sub Total (NR)	52263
WESTERN REGION (WR)	
Madhya Pradesh	1970
Chhattisgarh	2202
Gujarat	590
Maharashtra	3314
Goa	55
Sub total (WR)	8131
SOUTHERN REGION (SR)	
Andhra Pradesh	3261
Telangana	1099
Karnataka	6459
Kerala	3378
Tamil Nadu	1693
Sub Total (SR)	15890
EASTERN REGION (ER)	
Jharkhand	582
Bihar	40
Odisha	2981
West Bengal	2829
Sikkim	4248
Sub Total (ER)	10680
NORTH EASTERN REGION (NER)	
Meghalaya	2298
Tripura	0
Manipur	1761
Assam	650
Nagaland	1452
Arunachal Pradesh	50064
Mizoram	2131
Sub Total (NER)	58356
ALL INDIA	145320

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 1117 ANSWERED IN THE RAJYA SABHA ON 26.07.2022

Sector-wise Installed Capacity of H.E. Stations (>25 MW) in the country		
Sector	No. of Stations	Installed Capacity (MW)
Central	42	15664.70
State	147	27254.45
Private	22	3931.00
Total	211	46850.15

Summary of Under Construction HEPs(above 25 MW) -Sector-wise) in the country		
Sector	No. of HEP	Capacity (MW)
Central	16	9025
State	11	2601.5
Private	9	2477
Total	36	14103.5

**ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 1117 ANSWERED
IN THE RAJYA SABHA ON 26.07.2022**

**Hydro Electric Schemes in Private Sector Concurred by CEA and
yet to be taken up for construction for various reasons**

Sl. No	Scheme	Agency	Installed Capacity (MW)	Date of CEA Concurrence	Remarks
Arunachal Pradesh					
1.	Talong Londa	GLHPL	225	16.08.2013	• EC accorded on 07.08.2015. • FC-I & FC-II yet to be obtained.
2.	Etalin	EHEPCL	3097	12.07.2013	• EC recommended by EAC on 31.01.2017. Letter will be issued after FC-I. • FC-I & FC-II yet to be obtained.
3.	Attunli	AHEPCL	680	02.07.2018	• Both EC and FC are yet to be obtained.
4.	Lower Siang	JAPL	2700	16.02.2010	• Both EC & FC are yet to be obtained.
5.	Demwe Lower	ADPL	1750	20.11.2009	• EC accorded on 12.02.2010. • FC accorded on 03.05.2013. • Project is under NCLT since 2017.
6.	Kalai-II	Kalai PPL	1200	27.3.2015	• EC accorded 20.05.2015. Final order will be issued after obtaining FC-I. • FC-I and FC-II yet to be obtained.
7.	Heo	HHPPL	240	28.07.2015	• EC accorded on 10.11.2015. • FC-I accorded on 27.10.2015. • FC-II yet to be obtained.
8.	Tato-I	SHPPL	186	28.10.2015	• EC accorded on 10.11.2015. • FC-I accorded on 27.10.2015. • FC-II yet to be obtained.
Sub- Total (MW)			10078		
Nagaland					
9.	Dikhu	NMPPL	186	31.03.2014	• EC yet to be obtained by developer. • FC not applicable as forest land is not involved.
Sub-Total (MW)			186		
Uttarakhand					
10.	Alaknanda	GMRL	300	08.08.2008	• EC accorded on 12.3.2008. • FC-I accorded on 08.11.2011. • FC-II accorded on 09.11.2012. • The project is included in the list of 24 projects under review by Hon’ble Supreme Court.
Sub-Total (MW)			300		
Grand Total (MW)			10564		

Note: EC: Environment Clearance FC-I: Stage-I of forest clearance

FC-II: Stage-II of forest clearance
