

**GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
STARRED QUESTION NO.7
ANSWERED ON 02.02.2023**

HYDRO POWER PROJECTS IN HIMALAYAN REGION

***7. SHRI ASADUDDIN OWAISI:**

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

- (a) the details of the number of ongoing hydro power projects in the Himalayan belt across different States in the country at present;**
- (b) whether any environmental angle was taken/proposed to be taken into account while sanctioning and starting such projects in this region and if so, the details thereof;**
- (c) the details of the number of projects affected by floods, landslides and other ecological events in this region;**
- (d) the extent to which the recent situation/events in Joshimath region has affected the power projects; and**
- (e) the steps taken/proposed to be taken by the Government to ensure that environmental, ecological and geographical angles are taken into consideration before sanctioning and starting such power projects?**

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) to (e) : A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF STARRED QUESTION NO. 7 ANSWERED IN THE LOK SABHA ON 02.02.2023 REGARDING HYDRO POWER PROJECTS IN HIMALAYAN REGION.

(a) : At present, there are 30 nos. of large Hydro Electric Projects (HEPs) (above 25 MW Installed Capacity) with aggregate Installed Capacity of 11137.50 MW which are being developed in the Himalayan belt across different States in the country. Out of these projects, 23 Nos. of Hydro Electric projects totaling to 10381.5 MW, are under active construction and 7 nos. of HEPs totaling to 756 MW, are held up. The details of these projects are enclosed at Annexure-I. Besides, there are 87 nos. HEPs with an aggregate Installed Capacity of 22982 MW in Himalayan belt across different States in the country which are operational (Annexure-II).

(b) : No hydro project above 25 MW is taken up before getting Environmental Clearance which is given by Ministry of Environment, Forest and Climate Change (MoEF&CC) only after a comprehensive assessment by an Expert Appraisal Committee (EAC).

The project proposal is also assessed from the aspect of safety by the Central Water Commission (CWC). Central Electricity Authority (CEA) examines the project proposal before giving statutory concurrence along with other appraising agencies including Geological Survey of India (GSI) and Central Soil and Materials Research Station (CSMRS). This ensures that all necessary clearances are in place before start of construction of a hydro power project.

(c) : Out of 30 under construction projects, only 2 projects namely Phata Byung (76MW) and Tapovan Vishnugad (520 MW) located in Uttarakhand were impacted due to natural events such as floods/ice avalanche in the last 10 years.

(d) : No large hydro power project lies in the close proximity of Joshimath town. The nearest power project namely Tapovan Vishnugad HEP, is also far away from the site where subsidence took place in recent past. Tapovan Vishnugad HEP remains unaffected due to subsidence incident in the Joshimath region. However, the District Administration has issued an order on 05.01.2023 to stay the construction activities at the project site until further orders.

(e) : As stated in the reply to part (b), no hydro project above 25 MW is taken up without Environmental Clearance.

As per Section 8 (1) of the Electricity Act, 2003, any generating company intending to set up a hydro generating station shall prepare and submit to the CEA for its concurrence, a scheme estimated to involve a capital expenditure exceeding such sum as may be fixed by the Central Government, from time to time (presently Rs.1000 crores).

Large hydro projects are examined from basin planning, environmental, ecological and geological angles by CEA along with other appraising agencies like Central Water Commission (CWC), Geological Survey of India (GSI), Central Soil and Materials Research Station (CSMRS) before according final clearance to the project.

GSI appraises the geology of the project components to ensure that detailed geological mapping & geophysical surveys have been done, drilling/ drifting carried out and structural features have been studied in detail before construction. CWC examines the foundation engineering and seismicity aspects of the project to ensure that site specific seismic study for a river valley project including geological setting of the area and tectonic features of the region are studied and seismic design parameters are followed. Construction material & geotechnical aspects are examined in detail by CSMRS. Hydro Power Projects are taken up for construction only after necessary statutory clearances are given by the concerned bodies.

**ANNEXURE REFERRED TO IN PART (a) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO.7
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List of Hydro Electric Projects (above 25 MW) under implementation in the Himalayan States (As on 26.01.2023)									
Sl. No.	Name of Scheme (Executing Agency)	Sector	District	I.C. (No. X MW.)	Cap. Under Execution (MW)	River/Basin	Date of Environmental Clearance	Physical progress (in %)	Date of finish/ commission- ing
Arunachal Pradesh									
1	Subansiri Lower (NHPC)	Central	Lower Subansiri	8x250	2000.00	Subansiri/ Brahmaputra	16.7.2003	84%	2023-25 (June'24)#
Sub-total: Arunachal Pradesh					2000.00				
Assam									
2	Lower Kopli (APGCL)	State	Dima Hasao & Karbi Anglong	2x55+2x 2.5+1x5	120.00	Kopili/ Brahmaputra	4.9.2019	36%	2024-25 (Mar'25)
Sub-total: Assam					120.00				
Himachal Pradesh									
3	Parbati St. II (NHPC)	Central	Kullu	4x200	800.00	Parbati/Beas/ Indus	04.06.2001	95%	2023-24 (Mar'24)
4	Luhri-I (SJVN)	Central	Kullu/Shimla	2x80+2x25	210.00	Satluj/Indus	17.03.2020	33%	2025-26 (Jan'26)
5	Dhualasidh (SJVN)	Central	Hamirpur/ Kangra	2x33	66.00	Beas/Indus	21.02.2013	26%	2025-26 (Nov'25)
6	Sunni Dam (SJVN)	Central	Shimla/Mandi	4x73+1x73 +1x17	382.00	Satluj	04.02.2022	Works recently awarded	2027-28 (March'28)
7	Uhi-III (BVPCL)	State	Mandi	3x33.33	100.00	Uhi/Beas/ Indus	15.11.2002	93%	2024-25 (Dec'24)
8	Shongtong Karcham (HPPCL)	State	Kinnaur	3x150	450.00	Satluj/ Indus	19.05.2011	44%	2026-27 (Nov'26)
9	Chanju-III (HPPCL)	State	Chamba	3x16	48.00	Chanju Nallah	29.09.2017	Works recently awarded	2027-28 (June'27)
10	Tidong-I (Statkraft IPL)	Private	Kinnaur	3x50	150.00	Tidong/Satluj/ Indus	18.06.2008/06. 08.2021	90%	2023-24 (Dec'23)
11	Kutehr (JSW Energy Ltd)	Private	Chamba	3x80	240.00	Ravi/ Indus	05.07.2011	62%	2025-26 (Nov'25)
12*	Tangnu Romai (TRPG)	Private	Shimla	2x22	44.00	Pabbar/Tons/ Yamuna/ Ganga	01.05.2009	40%	*
Sub-total: Himachal Pradesh					2490.00				
Jammu & Kashmir									
13	Pakal Dul (CVPPL)	Central	Kishtwar	4x250	1000.00	Marusadar/ Chenab / Indus	29.2.2008	32%	2025-26 (July'25)
14	Kiru (CVPPL)	Central	Kishtwar	4x156	624.00	Chenab/ Indus	24.06.2016	15%	2025-26 (July'25)
15	Ratle (RHEPPL / NHPC)	Central	Kishtwar	4x205 + 1x30	850.00	Chenab/Indus	12.12.2012	6%	2025-26 (Feb'26)
16	Kwar (CVPPL)	Central	Kishtwar	4x135	540	Chenab/ Indus	10.04.2017	4%	2026-27 (Nov'26)
17	Parnai (JKSPDC)	State	Poonch	3x12.5	37.50	Jhelum/ Indus	24.12.2010	51%	2024-25 (Jun'24)
18*	Lower Kalnai (JKSPDC)	State	Kishtwar	2x24	48.00	Chenab/ Indus	22.08.2014	9%	*
Sub-total: Jammu & Kashmir					3099.50				
Sikkim									
19	Teesta St. VI NHPC	Central	South Sikkim	4x125	500.00	Teesta/Brah maputra	21.09.2006	48%	2025-26 (July'25)

20	Rangit-IV (NHPC)	Central	West Sikkim	3x40	120.00	Rangit/ Teesta/ Brahmaputra	16.05.2007	55%	2024-25 (Aug'24)
21*	Bhasmey (Gati Infrastructure)	Private	East Sikkim	2x25.5	51.00	Rangpo/ Teesta/ Brahmaputra	15.05.2007	30%	*
22*	Rangit-II (Sikkim Hydro)	Private	West Sikkim	2x33	66.00	Greater Rangit/ Teesta/ Brahmaputra	16.04.2010	20%	*
23*	Panan (Himagiri)	Private	North Sikkim	4x75	300.00	Rangyongchu/ Teesta/ Brahmaputra	02.01.2007	5%	*
	Sub-total: Sikkim				1037.00				
	Uttarakhand								
24	Vishnugad Pipalkoti (THDC)	Central	Chamoli	4x111	444.00	Alaknanda/ Ganga	22.08.2007	62%	2024-25 (Mar'25)
25	Naitwar Mori (SJVNL)	Central	Uttarkashi	2x30	60.00	Tons/Yamuna/ Ganga	16.06.2016	87%	2022-23 (March'23)
26	Tapovan Vishnugad (NTPC)	Central	Chamoli	4x130	520.00	Dhauliganga / Alaknanda & /Ganga	08.02.2005	75%	2024-25 (Dec'24)
27	Tehri PSS (THDC)	Central	Tehri Garhwal	4x250	1000.00	Bhilangna/ Bhagirathi/ Ganga	19.7.1990	93%	2023-24 (Oct'23)
28*	Lata Tapovan (NTPC)	Central	Chamoli	3x57	171.00	Dhauliganga /Alaknanda & Ganga	21.02.2007	4%	*
29*	Phata Byung (LANCO)	Private	Rudraprayag	2x38	76.00	Mandakini/ Alaknanda Ganga	18.02.2008	74%	*
	Sub-total: Uttarakhand				2271.00				
	West Bengal								
30	Rammam-III (NTPC)	Central	Darjeeling	3x40	120.00	Rammam/ Rangit/Teesta Brahmaputra	17.08.2007	44%	2025-26 (July'25)
	Sub-total: West Bengal				120.00				
	Total:				11137.50				

4 units (1000 MW) likely to commissioned in 2023-24 and remaining 4 units (1000 MW) during 2024-25

*Project is presently stalled, commissioning subject to re-start of works

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State-wise / Station-wise Installed Capacity of H.E. Stations in Himalayan Region (Above 25 MW Capacity)						
Sl. No.	Stations	Utilities	Capacity (MW)	Design Energy (MU)	Year of Commissioning	District
Himachal Pradesh						
1	Bhakra Left	BBMB	612.00	3924.00	1961	BILASPUR
2	Bhakra Right	BBMB	785.00		1968	BILASPUR
3	Dehar	BBMB	990.00	3110.00	1983	MANDI
4	Pong	BBMB	396.00	1123.00	1983	KANGRA
5	Baira Siul	NHPC	180.00	779.28	1981	CHAMBA
6	Chamera-I	NHPC	540.00	1664.56	1994	DALHOUSIE
7	Chamera-II	NHPC	300.00	1499.89	2004	CHAMBA
8	Chamera-III	NHPC	231.00	1108.00	2012	CHAMBA
9	Parbati-III	NHPC	520.00	1977.23	2014	KULLU
10	Nathpa Jhakri	SJVNL	1500.00	6612.00	2004	KINNAUR
11	Rampur	SJVNL	412.00	1878.08	2014	SHIMLA
12	Koldam	NTPC	800.00	3054.79	2015	MANDI
13	Bassi	HPSEBL	66.00	346.77	1981	MANDI
14	Giri Bata	HPSEBL	60.00	240.00	1978	SIRMAUR
15	Larji'	HPSEBL	126.00	586.85	2006	KULLU
16	Sanjay	HPSEBL	120.00	518.00	1989	KINNAUR
17	Integrated Kashang	HPPCL	195.00	245.80	2017	KINNAUR
18	Sainj	HPPCL	100.00	323.23	2017	KULLU
19	Sawra Kuddu	HPPCL	111.00	386.00	2020	SHIMLA
20	Shanan	PSPCL	110.00	585.00	1982	MANDI
21	Malana	MPCL	86.00	370.93	2001	KULLU
22	Budhil	GBHPPL	70.00	291.73	2012	CHAMBA
23	Malana-II	EPPL	100.00	403.00	2011	MALANA
24	Chanju-I	IA Energy	36.00	157.82	2017	CHAMBA
25	Allain Duhangan	ADHPL	192.00	678.18	2010	MANALI
26	Baspa	HBPCL	300.00	1213.00	2003	KINNAUR
27	Karcham Wangtoo	HBPCL	1045.00	4131.06	2011	KINNAUR
28	Sorang	HSPPL	100.00	524.00	2021	Kinnaur
29	BajoliHoli	GMR	180.00	769.39	2022	Chamba
Total Himachal Pradesh			10263.00	38501.59		
JAMMU & KASHMIR						
30	Baglihar-I	JKSPDC	450.00	2643.00	2008	DODA
31	Baglihar-II	JKSPDC	450.00	1302.30	2015	DODA
32	Lower Jhelum	JKSPDC	105.00	533.00	1979	BARAMULLAH
33	Upper Sindh-II	JKSPDC	105.00	355.00	2002	GANDERBAL
34	Dulhasti	NHPC	390.00	1907.00	2007	DODA
35	Salal-I&II	NHPC	690.00	3082.00	1995	REASI
36	Uri-I	NHPC	480.00	2587.38	1997	BARAMULA
37	Uri-II	NHPC	240.00	1124.00	2014	BARAMULLAH
38	Sewa-II	NHPC	120.00	533.52	2010	KATHUA
39	Keshanganga	NHPC	330.00	1705.62	2018	BANDIPORA
Total Jammu & Kashmir			3360.00	15772.82		
LADAKH						
NHPC						
40	Chutak	NHPC	44.00	213.00	2013	KARGIL
41	NimooBazgo	NHPC	45.00	239.00	2013	LEH
Total Ladakh			89.00	452.00		
UTTARAKHAND						
42	Dhaulti Ganga	NHPC	280.00	1134.69	2005	PITHORAGARH
43	Tanakpur	NHPC	94.20	452.19	1992	CHAMPAVAT
44	Tehri St-I	THDC	1000.00	2797.00	2007	TEHRI GARHWAL

45	Koteshwar	THDC	400.00	1155.00	2012	TEHRI GARHWAL
46	Chibro (Yamuna)	UJVNL	240.00	750.00	1976	DEHRADUN
47	Chilla	UJVNL	144.00	725.00	1981	HARIDWAR
48	Dhakrani	UJVNL	33.75	169.00	1970	DEHRADUN
49	Dhalipur	UJVNL	51.00	192.00	1970	DEHRADUN
50	Khatima	UJVNL	41.40	208.00	1956	U.S. NAGAR
51	Khodri	UJVNL	120.00	345.00	1984	DAK PATHAR
52	Kulhal	UJVNL	30.00	164.00	1975	DEHRADUN
53	Maneri Bhali-I	UJVNL	90.00	395.00	1984	UTTARKASHI
54	Maneri Bhali-II	UJVNL	304.00	1566.10	2008	UTTARKASHI
55	Ramganga	UJVNL	198.00	334.00	1977	PAURI GARHWAL
56	Vyasi	UJVNL	120.00	375.24	2022	DEHRADUN
57	Shrinagar	AHPC	330.00	1396.84	2015	PAURI GARHWAL
58	Vishnu Prayag	JPPVL	400.00	1774.42	2006	CHAMOLI
59	Singoli Bhatwari	ReNew Power Private Ltd	99.00	473.00	2020	RUDRAPRAYAG
Total Uttarakhand			3975.35	14406.48		
WEST BENGAL						
60	Maithon	DVC	63.20	137.00	1958	DHANBAD
61	Teesta Low Dam-III	NHPC	132.00	594.00	2013	DARJEELING
62	Teesta Low Dam-IV	NHPC	160.00	719.67	2016	DARJEELING
63	Jaldhaka	WBSEDCL	36.00	165.00	1972	JALPAIGURI
64	Rammam	WBSEDCL	50.00	210.00	1996	DARJEELING
65	Purulia	WBSEDCL	900.00	1235.00	1996	PURULIA
Total West Bengal			986.00	1610.00		
SIKKIM						
66	Rangit	NHPC	60.00	338.61	2000	GANGTOK
67	Teesta-V	NHPC	510.00	2572.70	2008	EAST SIKKIM
68	Teesta-III	Teesta Urja Ltd.	1200.00	5214.00	2017	NORTH SIKKIM
69	Chujachen	GIPL (Gati Infra Pvt. Ltd.)	110.00	537.81	2013	EAST SIKKIM
70	Dikchu	SKPPPL	96.00	431.00	2017	EAST SIKKIM
71	Tashiding	SEPL	97.00	425.05	2017	WEST SIKKIM
72	Jorethang Loop		96.00	459.02	2015	JORETHANG
73	Rongnichu	MBPC	113.00	434.00	2021	EAST SIKKIM
Total Sikkim			2282.00	10412.19		
ARUNACHAL PRADESH						
74	Ranganadi	NEEPCO	405.00	1509.66	2002	LOWER SUBANSIRI
75	Pare	NEEPCO	110.00	506.42	2018	PAPUM PARE
76	Kameng	NEEPCO	600.00	3353.00	2021	WEST KAMENG
Total Arunachal Pradesh			1115.00	5369.08		
ASSAM						
77	Kopoli	NEEPCO	200.00	1186.14	1997	DIMA HASAO
78	Khandong	NEEPCO	50.00	363.95	1984	DIMA HASAO
79	KarbiLangpi	APGCL	100.00	390.00	2007	KARBI ANGLONG
Total Assam			350.00	1940.09		
MIZORAM						
80	Tuirial	NEEPCO	60.00	250.63	2017	KOLASIB
Total Mizoram			60.00	250.63		
NAGALAND						
81	Doyang	NEEPCO	75.00	227.24	2000	WOKHA
Total Nagaland			75.00	227.24		
MANIPUR						
82	Loktak	NHPC	105.00	448.00	1983	IMPHAL
Total Manipur			105.00	448.00		
MEGHALAYA						
83	Kyrdemkulai	MePGCL	60.00	118.00	1979	RI-BHOI
84	Umiam St. I	MePGCL	36.00	128.00	1965	RI-BHOI
85	New Umtru	MePGCL	40.00	235.00	2017	RI-BHOI
86	Umiam St. IV	MePGCL	60.00	324.00	1992	RI-BHOI
87	Myntdu St-I	MePGCL	126.00	372.69	2013	JAINTIA HILLS
Total Meghalaya			322.00	1177.69		
Total Himalayan States			22982.35	90567.81		
