#### केंद्रीय विद्युत प्राधिकरण

(जल विद्युत स्कंध)



# निर्माणाधीन जल विद्युत परियोजनाओं की प्रगति

(विद्युत अधिनियम, 2003 के तहत के.वि.प्रा. के दायित्व की पूर्ति में)

# त्रैमासिक समीक्षा संख्या. 116 QUARTERLY REVIEW No. 116

जनवरी ~ मार्च, 2024

जल विद्युत् परियोजना प्रबोधन प्रभाग

नई दिल्ली

अप्रैल-2024

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#### **Executive Summary**

#### ALL INDIA POWER SECTOR INSTALLED CAPACITY (AS ON 31.03.2024)

<b>Installed Capacity (IC)</b>	MW	Percentage of total IC
Thermal (Coal, Lignite, Gas & Diesel)	243216.87	(55.03%)
Renewable		
a) Large hydro (above 25MW)	46928.17	(10.61%)
b) Other Renewables (solar, wind, biomass small hydro etc.)	143644.51	(32.5%)
Nuclear	8180.00	(1.85%)
TOTAL (IC)	441969.55	

**Sector wise Hydro Capacity under Execution:** A hydro capacity (from hydro projects >25 MW) of **17973.5 MW** is under execution. Sector wise summary is given as under: -

Sector	<b>Under construction</b>		Presently	stalled	Under Execution (MW)		
	Nos	MW	Nos	MW	Nos	MW	
Central	16	12056	1	171	17	12227.00	
State	13	3091.5	2	128	15	3219.5	
Private	3	1590	6	937	9	2527	
Total:	32	16737.5	9	1236	41	17973.5	

#### **Monitorable Targets for Hydro Capacity Addition for the year 2024-25:**

Monitorable Targets for hydro capacity addition for the year 2024-25 is **3320 MW** (1800 MW in the Central Sector, 320 MW in State Sector and 1200 MW in Private Sector).

Details are as under:

Sl. No.	Name of Project	State/ Implem. Agency	Unit No.	_	acity W)	Capacity Addition
				Target	Actual	As Programmed/ Anticipated
	Central Sector					
1	Parbati-II /NHPC (4*200=800 MW)	Himachal Pradesh/NHPC	U-1to U-4	800	0	Dec'24
2	Tehri PSS/THDC (4*250=1000 MW) Uttarakhand/THDC		U-1 to U-4	1000	0	Oct'24
		Sub- total (Central):		1800	0	
	State Sector					
3	Pallivasal (2x30= 60 MW)	Korolo/KSEBItd		60	0	June'24
4	Thottiyar (1x30 + 1x10 = 40 MW)	Kerala/ KSEB Ltd.	U-1 to U-2	40	0	Apr'24
5	Lower Kopili (2*55+2*2.5 +1*5=120 MW)	Accom/ADGCI		120	0	Mar'25
6	Uhl-III (3*33.3=100 MW)	Himachal Pradesh/BVPCL	U-1 to U-3	100	0	Dec'24
		Sub- total (State):		320	0	
	Private Sector					
7	Pinnapuram 4X240+2X120 =1200 MW	4X240+2X120 Greenko Energies		1200	0	Dec'24
		Sub-total (Private):		1200	0	
	Total (	(CS+SS+PS)		3320	0	

Total capacity likely to be achieved by 31.03.2025 – 3320 MW

#### CHAPTER- 1 Milestones achieved during the Financial Year 2023-24

Milestones	achieved	during	the Fina	ancial Ye	ear 2023-24.
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• Naitwar Mori Hydro-electric Project (60MW) commissioned during Dec'23

CHAPTER – 2
Plan wise Hydro capacity Target Vs Achievement since 4th Plan

Plan /	Target (MW)	Capacity	% Achieved	
Year	(Original)	Addition (MW)		
4th Plan	3518.00	1058.39	30.08	
(1969-74)				
5th Plan	4654.00	3867.77	83.11	
(1974-79)				
Annual Plan	548.00	550.9	100.53	
(1979-80)				
6th Plan	4768.00	3076.05	64.51	
(1980-85)				
7th Plan	5541.25	3828.41	69.09	
(1985-90)				
Annual Plan	1006.50	445.5	44.26	
(1990-91)				
Annual Plan	754.30	436	57.8	
(1991-92)				
8th Plan	9282.15	2427.65	26.15	
(1992-97)				
9th Plan	9817.70	4538.25	46.23	
(1997-02)				
10th Plan	14393.20	7886	54.79	
(2002-07)				
11th Plan	15627.00	5544	35.48	
(2007-12)				
12 <sup>th</sup> Plan	10897.00	5479	50.28	
(2012-17)				
2017-18	1305.00	795	60.92	
2017 10	12 32.03	,,,,	0002	
2018-19	840.00	140	16.67	
2010 17	010.00	110	10.07	
2019-20	1190.00	300	25.21	
2017 20	1170.00	300	23.21	
2020-21	606.00	510	84.16	
2020-21	000.00	310	04.10	
2021-22	493.00	393	79.72	
2022-23	1080	120	11.11	
2023-24	2880.00	60	2.08	

#### CHAPTER - 2.1

S.No.	Year	Toward	Capacity	% Achieved	Remarks
5.110.	rear	Target		% Acmeved	Kemarks
		(Original)	Addition (MW)		
	   1st Five Year Pla	n (1 1 51 to 31	12 55)		
1	1951	III (1.1.51 to 51	15.89		
2	1952		140.00		
3	1953		16.00		
4	1954		62.17		
5	1955		146.13		
3	Total:		380.19		
	2nd Five Year Pl	an (1 1 56 to 3	•		
6	1956	an (1.1.50 to 5	121.96		
7	1957-58		152.48		
8	1958-59		147.52		
9	1959-60		168.71		
10	1960-61		386.51		
	Total:		977.18		
	3 3332 \$				
	3rd Five Year Pla	an (1.4.61 to 31	1.03.66)		
11	1961-62		502.44		
12	1962-63		517.25		
13	1963-64		230.67		
14	1964-65		221.71		
15	1965-66		<u>735.01</u>		
	Total:		2207.08		
	Annual Plans (19	066-67, 67-68, 6	<b>68-69</b> )		
16	1966-67		633.48		
17	1967-68		729.70		
18	1968-69		419.99		
	4th Five Year Pla	an (1.4.69 to 31	.03.74)		
19	1969-70		227.79		
20	1970-71		248.53		
21	1971-72		228.38		
22	1972-73		173.80		
23	1973-74		<u>179.89</u>		
	Total:	3518	1058.39	30.08	
	5th Five Year Pla	an (1.4.74 to 31	*		
24	1974-75		563.94		
25	1975-76		934.36		
26	1976-77		561.30		
27	1977-78		995.32		
28	1978-79		812.85		
	Total:	4654	<u>3867.77</u>	81.11	
	Annual Plan (197	1			
29	1979-80	548	550.90	100.18	

30	1980-81		407.25		
31	1981-82		381.59		
32	1982-83		883.05		
33	1983-84		799.70		
34	1984-85		<u>604.46</u>		
	Total:	4768	<u>3076.05</u>	64.51	
	7th Five Year Pla	ın (1.4.85 to 31	1.03.90)		
35	1985-86		1012.00		
36	1986-87		704.525		
37	1987-88		1069.285		
38	1988-89		532.70		
39	1989-90		509.90		
	Total:	5541.25	3828.41	69.09	
	Annual Plans (19	l l	002011	07.07	
40	1990-91	1006.5	445.50	44.26	
41	1991-92	754.3	436.00	57.8	
41	<del>                                     </del>	I		37.0	
42	8th Five Year Pla	,	372.95		
43	1992-93	372.95 957.65	797.15		
43	1993-94	1192.55	450.00		
45	1994-93	1846	147.05		
45	1995-96	4913			
40	+		<u>660.50</u>	26.15	
	Total:	9282.15	2427.65	26.15	
477	9th Five Year Pla	,	· · · · · · · · · · · · · · · · · · ·		
47	1997-98	233	233.00		
48	1998-99	312	542.50		
49	1999-2000	1543	1371.50		
50	2000-01	2223	1285.00		
51	2001-02	5506.7	1106.25		
	Total:	9817.7	<u>4538.25</u>	46.22	
	10th Five Year P	·	·	1	
52	2002-03	585	635.00		
53	2003-04	3740	2590.00		Highest till date.
54	2004-05	2401	1015.00		
55	2005-06	2010	1340.00		
56	2006-07	5657	2306.00		3rd Hightest
	Total:	14393	7886.00	54.79	
	11th Five Year P	lan (1.4.07 to 3	31.03.12)		
57	2007-08	2423	2423		2nd Highest.
58	2008-09	1097	969		
59	2009-10	1805	39		
60	2010-11	1741	690		
61	2011-12	8561	1423		
	Total:	15627	5544.00	35.48	
	12th Five Year P	L		122.0	
62	2012-13	802	510		
63	2013-14	1198	1058		
64	2014-15	842	736		
		-	6	I	L

65	2015-16	1691	1516		
66	2016-17	1714	1659		4th Highest
	Total:	10897	5479	50.23	
67	2017-18	1305	795	60.92	
68	2018-19	840	140	16.67	
69	2019-20	1190	300	25.21	
70	2020-21	606	510	84.16	
71	2021-22	493	393	79.72	
72	2022-23	1080	120	11.11	
73	2023-24	660	60	9.09	

Targets set at the beginning of the year from 2017-18.

Chapter- 2.1(a)

Hydro Capacity Addition during the Year 2014-15

Sl. No.	Particular	Unit	Capacity	(MW)	Commi	ssioning	Remarks/Critical Issue
NO.		Nos.	Target	Actual	As Programmed	Actual (A)/ Anticipated	- Remarks/Critical Issue
<b>A.</b> (	Central Sector						
1	Parbati-III NHPC, HP 4x130= 520 MW	Unit # 4	130	130	Aug- 14	22.05.2014 (A)	Commissioned
2	Rampur SJVN Limited, HP. 6x68.67 = 412 MW	Unit # 3 Unit # 4 Unit # 6	68.67 68.67 68.67	68.67 68.67 68.67	Jun 14 May 14 Apr 14	31.07.2014(A) 12.06.2014(A) 04.12.2014(A)	Commissioned
Ou	t side the Programm	е					
3	<b>Koldam</b> NTPC, H.P. 4x200 = 800 MW	Unit # 1 Unit # 2	200 200	200 200	Mar-15 Mar-15	31.03.2015 (A) 30.03.2015 (A)	Commissioned
	Sub- total (A):		736	736			
B. S	State Sector				<u>l</u>		
4	Lower Jurala TSGENCO, Telangana 6x40= 240 MW	Unit # 1 Unit # 2 Unit # 3 Unit # 4	40 40 40 40	0 0 0 0	Jul14 Jul14 Oct14 Mar15	Slipped	- Slipped due to flooding of Power House on 30.07.2014 during synchronization process for Unit # 1 to Unit# 3.
5	Nagarjuna Sagar APGENCO, A.P. 2x25= 50 MW	Unit # 1 Unit # 2	25 25	0 0	Sep-14 Dec-14	Slipped	- Commissioning delayed due to non-availability of water.
	Sub- total (B):		210	0			
<b>C.</b> 1	Private Sector						
6	Jorethang Loop DANS Pvt. Ltd., Sikkim 2x48= 96 MW	Unit # 1 Unit # 2	48 48	0	Feb-15 Mar-15	Slipped	- Slipped due to non-completion of HRT.
7	Teesta-III Teesta Urja, Sikkim 6x200= 1200 MW	Unit # 6	200	0	Mar-15	Slipped	- Slipped due to Financial crunch with the Developer.
	Sub- total (C):		296	0			
	Total (A+B+C)		842	736			

**Out side RFD achievements:** 

Unit #1 & # 2 (400 MW) of Kol Dam HEP commissioned during March, 2015.

# Chapter- 2.1b

#### **Hydro Capacity Addition during the Year 2015-16**

Sl. No.	Particular	Unit Nos.			Comm	issioning	Remarks/Critical
			Target	Actu al	As Programm ed	Actual (A)/ Anticipated	Issue
Α.	Central Sector						
1	Koldam NTPC, HP 4x200= 800 MW	Unit # 3 Unit # 4	200 200	200 200	4/15 5/15	10.04.2015(A) 12.06.2015(A)	Commissioned
2	Teesta Low Dam–IV NHPC, W.B 4x40 = 160 MW	Unit # 1 Unit # 2	40 40	40 40	2/16 3/16	14.02.2016 16.03.2016	Commissioned
3	Pare NEEPCO, Ar. Pradesh 2x55=110 MW	Unit # 1 Unit # 2	55 55		8/12 8/12	Slipped Slipped	Slipped due to inundation of dam area with flood water after overtopping of Coffer Dam in June'15 and many times thereafter. Slow progress of works in Dam concreting.
	Sub- total (A):		590	480			Achieved:-480 MW
В.	State Sector						
4	Baglihar - II JKPDC, J&K 3x150= 450 MW	Unit # 1 Unit # 2 Unit # 3	150 150 150	150 150 150	9/15 9/15 2016-17	05.09.2015(A) 29.09.2015(A) 26.10.2015(A)	Commissioned
5	Kashang – I HPPCL, H.P. 1x65=65 MW	Unit # 1	65		3/16	Slipped	Slow progress of E&M works.
6	Lower Jurala TSGENCO, Telangana 6x40= 240 MW	Unit # 1 Unit # 2 Unit # 3 Unit # 4	40 40 40 40	40 40 40 40	7/15 8/15 9/15 10/15	14.10.2015(A) 30.09.2015(A) 04.01.2016(A) 05.03.2016(A)	Commissioned
7	Nagarjuna Sagar TR APGENCO, AP 2x25=50 MW	Unit # 1 Unit # 2	25 25		7/15 7/15	Slipped Slipped	Unit 1 & 2 could not be commissioned due to non-availability of rated discharge.
	Sub- total (B):		575	610			Achieved:-610 MW
C.	Private Sector						
8	Sorang HSPCL, H.P. 2x50 = 100 MW	Unit # 1 Unit # 2	50 50		11/11 12/11	Slipped Slipped	Unit # 1 synchronized, but could not be commissioned due to non-availability of rated discharge. Penstock ruptured on 18.11.2015.
9	Srinagar AHPCL, Uttarakhand 4x82.5=330	Unit # 1 Unit # 2 Unit # 3 Unit # 4	82.5 82.5 82.5 82.5	82.5 82.5 82.5 82.5	4/15 4/15 5/15 6/15	10.04.2015(A) 08.06.2015(A) 20.04.2015(A) 03.06.2015(A)	Commissioned
10	Jorethang Loop DANS Pvt. Ltd., Sikkim 2x48= 96 MW	Unit # 1 Unit # 2	48 48	48 48	9/15 10/15	22.09.2015(A) 23.09.2015(A)	Commissioned
	Sub- total (C):		526	426			Achieved:-426 MW
	Total (A+B+C)		1691	1516			Achieved:-1516 MW
		Note: 1516	MW out of	1691 MW	is Commission	ed during 2015-1	6.

**Out side RFD achievements:** 

Unit #3 (150 MW) of Baglihar-II HEP commissioned ahead of Programme during Oct-2015.

Chapter- 2.1c

Hydro Capacity Addition during the Year 2016-17

Sl.		Unit Nos.	Capacity	(MW)	Commis	ssioning	Remarks/ Critical	
No.	Particular	 	Target	Actual	As Programmed	Actual(A)/ Anticipated	Issue	
A.	Central Sector							
1	Teesta Low Dam IV NHPC, West Bengal 4x40 = 160 MW	Unit # 3 Unit # 4	40 40	40 40	Jun.16 Sep.16	03.07.2016(A) 11.08.2016(A)	Commissioned	
2	Pare NEEPCO, Ar. Pradesh 2x55=110 MW	Unit # 1 Unit # 2	55 55	-	Aug.12 Aug.12	Slipped Slipped	Slow progress in Dam concreting and erection of spillway gates.	
3	NEEPCO, Ar. Pradesh 4x150= 600 MW	Unit # 1 Unit # 2	150 150	-	Dec.'09 Dec.'09	Slipped Slipped	Slow progress in Dam & HM works.	
	Sub- total (C.S.):		490	80				
B.	State Sector				•		•	
1	<b>Sainj</b> HPPCL, H.P 2x50= 100 MW.	Unit # 1 Unit # 2	50 50		Dec.16 Jan.17	Slipped Slipped	Slow progress of concreting barrage, pressure shaft & power house.	
2	Kashang – I HPPCL, H.P. 1x65=65 MW	Unit # 1	65	65	May 16	10.10.2016(A)	Commissioned	
3	Lower Jurala TSGENCO, Telangana 6x40= 240 MW	Unit # 5 Unit # 6	40 40	40 40	Sept.16 Nov.16	20.08.2016(A) 29.09.2016(A)	Commissioned	
4	Pulichintala TSGENCO,Telangana 4x30=120 MW	Unit # 1 Unit # 2	<b>30</b> 30	30	<b>Aug.16</b> Dec16	25.09.2016(A) Slipped	Commissioned Due to non-availability of water in the Dam.	
5	New Umtru MePGCL,Meghalaya 2x20=40 MW	Unit # 1 Unit # 2	20 20		Nov.16 Dec.16	Slipped Slipped	Slow progress of works.	
6	Teesta-III Teesta Urja Ltd. Sikkim 6x200= 1200 MW	Unit #1 Unit # 2 Unit # 3	200 200 200	200 200 200	Dec.16 Jan.17 Feb.17	15.01.2017(A) 27.01.2017(A) 14.01.2017(A)	Commissioned	
7	Nagarjuna Sagar TR APGENCO, Telangana 2x25= 50 MW	Unit #1 Unit #2	25 25	25 25	Aug.16 Aug.16	05.01.2017(A) 28.01.2017(A)	Commissioned	
	Sub- total (B):		995	825				
C.	Private Sector							
1	Chanju-I IA Energy; H.P. 3x12= 36 MW	Unit # 1 Unit # 2 Unit # 3	12 12 12	12 12	July 16 Sept.16 Dec.16	17.02.2017(A) 01.02.2017(A) Slipped	Commissioned Commissioned Slow progress of E&M works.	
2	Dikchu Sneha Kinetic Power Projects (P).Ltd., Sikkim 2x48= 96 MW	Unit # 1 Unit # 2	48 48		July.16 Sept.16	Slipped Slipped	Slow progress of HM & EM works.	
3	Tashiding Shiga Energy Pvt. Ltd. Sikkim 2x48.5= 97 MW	Unit # 1 Unit # 2	48.5 48.5	-	Jan.17 Feb.17	Slipped Slipped	Non completion of power evacuation system.	
	Sub- total (P.S.):		229	24				
	Total C.S.+S.S.+P.S.)		1714	929				

# Chapter- 2.1c

	Out	Side Pro	ogramme					
1	Kashang-II & III HPPCL, HP 1x65+1x65= 130M		Unit # 1 Unit # 2	65 65	65 65	NA NA	02.01.2017(A) 22.08.2016(A)	Commissioned
2.	Teesta-III Teesta Urja Ltd. Si 6x200=1200 MW.		Unit #4 Unit # 5 Unit # 6	200 200 200	200 200 200	Outside Programme	16.02.2017(A) 24.01.2017(A) 28.01.2017(A)	Commissioned
	Total Outside		Programme	:	730			
	Grand Total (31.03.2017)				1659			

#### Chapter- 2.1d Hydro Capacity Addition during the Year 2017-18

Sl. No.	Particular	Unit Nos.	Capaci	ty (MW)	Commi	ssioning	Remarks / Critical Issues
			Actual	Target	As Programmed	Actual (A)/ Anticipated	
A.	Central Sector						
1	<b>Tuirial</b> NEEPCO, Mizoram 2x30 = 60 MW	Unit # 1 Unit # 2	30 30	30 30	Jun '17 Sep '17	25.08.2017(A) 28.11.2017(A)	Commissioned
2	Kishanganga NHPC, J&K 3x110 = 330 MW	Unit #1 Unit # 2 Unit # 3	110 110 110	110 110 110	Jan '18 Feb '18 Mar '18	13.03.2018(A) 21.03.2018(A) 30.03.2018(A)	Commissioned
3	Pare NEEPCO, Arunachal Pradesh 2x55=110 MW	Unit # 1 Unit # 2	55 55	55 55	May'18 May'18	Slipped Slipped	Seepage from diversion tunnel during impounding of reservoir.
4	Kameng NEEPCO, Arunachal Pradesh 4x150=600 MW	Unit # 1 Unit # 2	150 150	-	Mar. '18 Mar. '18	Slipped Slipped	Leaking observed in Penstock during water filling
	Sub- total (A):		800	390	Total Commission	oned in Central Se	ctor : 390 MW
В.	State Sector						
1	Sainj HPPCL, H.P. 2x50= 100 MW	Unit # 1 Unit # 2	50 50	50 50	May.17 Jun.17	04.09.2017(A) 04.09.2017(A)	Commissioned
2	Uhl - III BVPCL, H.P. 3x33.33=100 MW	Unit #1 Unit # 2 Unit # 3	33.33 33.33 33.33	-	Jan.'18 Feb.'18 Mar.'18	Slipped Slipped Slipped	Delay in completion of HRT lining due to heavy ingress of water in HRT.
3	Pulichintala TSGENCO,Telangana 4x30=120 MW	Unit # 2 Unit # 3	30 30	30 30	Aug.17 Oct.17	26.10.2017(A) 01.11.2017(A)	Commissioned
4	New Umtru MePGCL, Meghalaya 2x20=40 MW	Unit # 1 Unit # 2	20 20	20 20	Apr.17 Jul.17	22.04.2017 (A) 30.06.2017 (A)	Commissioned
	Sub- total (B):		300	200	Total Cor	mmissioned in Stat	e Sector :200 MW
C.	Private Sector						
1	Chanju-I IA Energy, H.P. 3x12 = 36 MW	Unit # 3	12	12	May.17	26.07.2017 (A)	Commissioned
2	Dikchu Sneha Kinetic Power Projects Pvt. Ltd., Sikkim,2x48MW= 96	Unit # 1 Unit # 2	48 48	48 48	Apr.17 May.17	11.04.2017 (A) 12.04.2017 (A)	Commissioned
3	Tashiding Shiga Energy Pvt. Ltd. Sikkim 2x48.5= 97 MW	Unit # 1 Unit # 2	48.5 48.5	48.5 48.5	Jul.17 Aug.17	06.11.2017 (A) 06.11.2017(A)	Commissioned
	Sub- total (C):		205	205	Total Com	missioned in Priva	te Sector : 205 MW
	Total (A+B+C)		1305	795	Total Com	nmissioned during	2017-18 : 795 MW.

#### Chapter- 2.1e Hydro Capacity Addition during the Year 2018-19

Sl. No.	Particular	Unit Nos.	Capacit	y (MW)	Commis	sioning	Remarks / Critical Issues
			Target	Actual	As Programmed	Actual (A)/ Anticipated	
A.	Central Sector						
1	Pare NEEPCO, Arunachal Pradesh 2x55=110 MW	Unit # 1 Unit # 2	55 55	55 55	May'18 May'18	28.05.2018 21.05.2018	Commissioned
2	Kameng NEEPCO, Arunachal Pradesh 4x150=600 MW	Unit # 1 Unit # 2 Unit # 3 Unit # 4	150 150 150 150		March'19 March'19 March'19 March'19	Slipped to 2019-20	Non-completion of Rectification works of leakage observed in penstock1&2 during water filling
	Sub- total (A):		710	110	<b>Total Commission</b>	ed in Central Sect	tor :110 MW
B.	State Sector						
3	Uhl - III BVPCL, H.P. 3x33.33=100 MW	Unit #1 Unit # 2 Unit # 3	33.33 33.33 33.33		Aug. 18 Aug. 18 Sep. 18	Slipped to 2019-20	During HST, some leakage in Penstock is observed which is being rectified.
4	Pulichintala TSGENCO, Telangana 4x30=120 MW	Unit # 4	30	30	Sep.18	08.09.2018(A)	Commissioned
	Sub- total (B):		130		30		
	Total (A+B)		840		140	Total C	Comm. 140 MW

Chapter-2.1f

Hydro Capacity Addition during the Year 2019-20

Sl.	Particular	Unit Nos.	Capacity	(MW)	Commi	issioning	Remarks /
No.			Target	Actual	As Programmed	Actual (A)/ Anticipated	Critical Issues
A.	Central Sector			1			
1	Kameng NEEPCO, Arunachal Pradesh 4x150=600 MW	Unit # 1 Unit # 2 Unit # 3 Unit # 4	150 150 150 150	150 150	Aug'19 Aug'19 Aug'19 Aug'19	Feb,20 Feb,20 Slipped Slipped Slipping to (March-21)	-Seepage of water during welding affecting progress of works and causing delaysDifficult approach and working conditionVentilation constrains Works effected due to heavy rains this monsoon.
	Sub- total (A):		600	300			
B.	State Sector						
2.	Uhl - III BVPCL, H.P. 3x33.33=100	Unit #1 Unit # 2 Unit # 3	33.33 33.33 33.33		Oct,19 Nov,19 Dec,19	Slipping to (Dec,22)	-Difficult approach -Delay in welding of liner in bend Rupture in Penstock in May,2020
3	Sawra Kuddu HPPCL, H.P. 3x37=111 MW	Unit #1 Unit # 2 Unit # 3	37 37 37		Sep,19 Oct,19 Nov,19	Slipping to (March,21)	<ul> <li>Delay in completion of HRT works &amp; associated transmission line.</li> <li>During filling of water conductor system in May,20, leakage is observed in adit to HRT</li> </ul>
	Sub- total (B):		211				
C.	Private Sector						
4.	<b>Bajoli Holi</b> GMR,H.P. 3x60=180 MW	Unit #1 Unit # 2 Unit # 3	60 60 60		Jan.,20 Feb.,20 Mar.,20	Slipping to (Dec,21)	-Works affected due to heavy rainfall in August,19 and inclement weather from early Dec,19. to end of Jan,20 -Poor financial health of civil contractor.
5.	Singoli Bhatwari L&T, Uttarakhand 2x33=99 MW	Unit #1 Unit # 2 Unit # 3	33 33 33		Mar.,20 Mar.,20 Mar.,20	Slipping to (Dec,20)	-Commissioned
6.	Sorang HSPCL Uttarakhand 2x50=100 MW	Unit #1 Unit # 2	50 50		Nov,19 Dec.,19	Slipping to Dec,21	- Poor planning of re- erection of penstock works - Weather constraints.
	Sub- total (C):		379				
	Total (A+B+C)		1190	300			

**Hydro Capacity Addition during the Year 2020-21** 

Chapter-2.1(g)

Remarks Critical Iss	
/ d	
Commissioned Commissioned	
Commissioned Commissioned Commissioned	
Commissioned Commissioned Commissioned	
missioned in FY 2021- IW enhanced capacity	
)	Commissioned Commissioned Commissioned Commissioned The Commissioned C

Note: 510 MW capacity addition has been achieved in FY 2020-21 out of programmed capacity of total 606 MW

# **Hydro Capacity Addition during the Year 2021-22**

Chapter -2.1(h)

Sl. No.	Particular	Unit Nos.		apacity MW)	Capacity	Addition	Remarks/Critical Issues
Α.	State Sector		Target	Actual	As Programmed	Actual/ Anticipated	
1	Pallivasal KSEB, Kerala 2x30=60 MW	Unit #1 Unit # 2	30 30		December'21 December'21	2022-23 2022-23	Slipped to 2022-23
2	Thottiyar KSEB, Kerala 1x30+1x10=40M W	Unit #1 Unit # 2	10 30		December'21 December'21	2022-23 2022-23	Slipped to 2022-23
	Sub- total (A):		100 MW				
В.	Private Sector						
3	Sorang HSPCL, H.P. 2x50=100 MW	Unit #1 Unit # 2	50 50	100	June'21 June'21	23.09.2021 21.09.2021	Commissioned Commissioned
4	Bajoli Holi GMRBHHPPL, H.P. 3x60=180 MW	Unit #1 Unit # 2 Unit # 3	60 60 60	60 60 60	June'21 June'21 June'21	25.03.2022 27.03.2022 28.03.2022	Commissioned Commissioned Commissioned
5	Rongnichu MBPCL, Sikkim 2x56.5=113 MW	Unit #1 Unit # 2	56.5 56.5	113	May'21 May'21	25.06.2021 30.06.2021	Commissioned Commissioned
	Sub- total (B):		393 MW	393 MW			
	Total (A+B)		493 MW				

# Chapter -2.1(i) Hydro Capacity Addition during the Year 2022-23

#### Sl. **Particular** Unit Nos. Capacity **Capacity Addition Remarks/Critical Issues** (MW) No. **Target** Actual(A)/ Actual As **Programmed Anticipated Central Sector** Naitwar mori Unit #1 30 Dec'22 Mar'23 2X30=60MW Unit # 2 30 Jan'23 Mar'23 Subansiri Lower Unit #1 250 Extended Monsoon & 8x250 = 2000Unit #2 250 damage to protection wall Jan'23 Slipped to MW of power house / collapse Feb'23 2023-24 of DT-2 Tehri PSS 250 Unit #1 Mar'23 Slipped to Geological constraints 4x250 = 10002023-24 MW 810 MW Sub total (A) **State Sector** В Pallivasal Unit #1 30 -Extended Monsoon KSEB, Kerala Unit # 2 30 -Slow progress of works Mar'23 Slipped to 2x30=60 MW 2023-24 Mar'23 2 Thottiyar Unit #1 10 -Extended Monsoon KSEB, Kerala Unit #2 30 Feb'23 Slipped to -Slow progress of works 1x30+1x10=40M Mar'23 2023-24 3 Vyasi Unit #1 60 Apr'22 May'22 (A) U#1 Commissioned on 60 2x60=120 MW Unit #2 60 60 May'22 April'22(A) 24.05.2022 U# 2 Commissioned on 22.04.2022 Sub- total (B): 220 MW 120 MW C. **Private Sector** -Delay in clearance of Tidong-I Unit #1 50 Mar'23 Slipped to 2023-24 2x50 = 100 MWtransmission line -Pressure shaft misalignment issues

**50MW** 

1080MW

120MW

Sub- total (C):
Total (A+B+C)

# Hydro Capacity Addition during the Year 2023-24

**Chapter – 2.1 (j)** 

Sl. No.	Name of Project	State/ Implem	Unit No.	Capa (M	-	Сара	acity Addition	Reason for slippage
		Agency		Target	Actual	As Program med	Actual(A)/ Anticipated	
	Central Sector							
1	Naitwar Mori 2x30=60 MW	Uttarakhand /SJVNL	U-1 U-2	30 30	30 30	June'23 July'23	24.11.2023 04.12.2023	
2	Subansiri Lower 8x250=2000 MW	Arunachal Pradesh/NHP C	U-1 U-2	250 250		Aug'23 Sept'23	Slipped to 2026-27 Slipped to 2026-27	<ul> <li>Diversion tunnel-1 collapsed.</li> <li>Slope stability of left bank.</li> <li>Erection of balance 6 nos. of radial gates, DT plugging</li> </ul>
		Sub- total (Central):		560		560	60	
	State Sector							
3	Pallivasal 2x30= 60 MW	Kerala/ KSEB Ltd.	U-1 U-2	30 30		Dec'23 Dec'23	Slipped to 2024-25 Slipped to 2024-25	Slow progress of works Slow progress of works
4	Thottiyar 1x30 + 1x10= 40 MW	Kerala/ KSEB Ltd.	U-1 U-2	30 10		Dec'23 Mar'24	Slipped to 2024-25 Slipped to 2024-25	Slow progress of works Slow progress of works
		Sub- total (State):		100		100	0	
	Total (C	S+SS+PS)		660	60	660	60	

Chapter 2.2 Summary of Hydro Addition expected during 2024-25 to 2031-32

													Stall	led	Tota	al
	2024	4-25	202	5-26	2020	5-27	2027	-28	2028	3-29	2031-	32				
Sector	MW	Nos.	MW	Nos.	MW	Nos.	MW	Nos.	MW	Nos.	MW	No s.	MW	Nos.	MW	Nos
Central Sector	1800	2	396	3	4918	5	1040	2	1022	3	2880	1	171	1	12227	17
State Sector	320	4	1933.5	5	490	2	48	1	300	1	0	0	128	2	3219.5	15
Private Sector	1200	1	390	2	0	0	0	0	0	0	0	0	937	6	2527	9
Total	3320	7	2719.5	10	5408	7	1088	3	1322	4	2880	1	1236	9	17973.5	41

Note:-Presently 41 no. of hydroelectric project (above 25 MW) totaling to 17973.5 MW are under implementation (CS-17 nos.(12227 MW),SS-15 nos.(3219.5 MW),PS-9 nos. (2527 MW)). Out of these,32 no. HEPs totaling to 16737.5 MW are under active construction (CS – 16 nos. (12116 MW), SS – 13 nos. (3091.5 MW), PS – 3 nos. (1590 MW) and 9 no. HEPs totaling to 1236 MW are presently stalled.

### Chapter 2.2(b) Hydro Capacity addition program for 2024-2025

S.No	Project Name/ Impl. Agency	Sector	State	Unit No.	Capacity (MW)	Anticipated Trial Run Date
<b>FY.</b> 2	2024-25					
1	Parbati-II /NHPC	Central	Himachal Pradesh	U-1 to 4	800	Dec'2024
2	Tehri PSS/THDC	Central	Uttarakhand	U-1 to 4	1000	Oct'2024
3	Lower Kopili /APGCL	State	Assam	U-1 to 5	120	Mar'2025
4	Uhl-III / BVPCL	State	Himachal Pradesh	U-1 to 3	100	Dec'2024
5	Pallivasal /KSEB	State	Kerala	U-1 to 2	60	June'2024
6	Thottiyar/KSEB	State	Kerala	U-1 to 2	40	April'2024
7	Pinapuram/Greenko	Private	Andhra Pradesh	U-1 to 6	1200	Dec'2024
		Sı	ıb-Total (FY	2024-25)	3320	

Chapter 2.2(c)

Hydro Capacity addition program for 2025-2026

<b>FY.</b> 2	2025-26					
S.No	Project Name/ Impl. Agency	Sector	State	Unit No.	Capacity (MW)	Anticipated Trial Run Date
1	Luhri-I /SJVN	Central	Himachal Pradesh	U-1 to 4	210	Jan'2026
2	Rangit-IV/NHPC	Central	Sikkim	U-1 to 3	120	May'2025
3	Dhaulasidh /SJVN	Central	Himachal Pradesh	U-1 to 2	66	Nov'2025
4	Polavaram / Polavaram Project Authority	State	Andhra Pradesh	U-1 to 12	960	Mar'2026
5	Shahpurkandi /PSPCL	State	Punjab	U-1 to 7	206	Oct'2025
6	Lower Sileru Extension /APGENCO)	State	Andhra Pradesh	U-1 to 2	230	Mar'2026
7	Kundah Pumped Storage (Phase-I, Phase-II & Phase-III) /TANGEDCO	State	Tamil Nadu	U-1 to 4	500	Jul'2025
8	Parnai/JKSPDC	State	Jammu & Kashmir	U-1 to 3	37.5	Dec'2025
9	Kutehr/JSW	Private	Himachal Pradesh	U-1 to 3	240	Nov'2025
10	Tidong-I /M/s Statkraft India Pvt. Ltd.	Private	Himachal Pradesh	U-1 to 3	150	Jun'2025
		$\mathbf{S}_{1}$	ub-Total (FY	2024-25)	2719.5	

### Chapter 2.2(d) Hydro Capacity addition program for 2026-2027

<b>FY.</b> 2	2026-27					
S.No	Project Name/ Impl. Agency	Sector	State	Unit No.	Capacity (MW)	Anticipated Trial Run Date
1	Kiru /CVPPL	Central	Jammu & Kashmir	U-1 to 4	624	Sep'2026
2	SUBANSIRI LOWER /NHPC	Central	Arunachal Pradesh	U-1 to 8	2000	May'2026
3	Ratle / NHPC	Central	Jammu & Kashmir	U-1 to U-5	850	Dec'2026
4	Pakal Dul /CVPPL	Central	Jammu & Kashmir	U-1 to U-	1000	Sept'2026
5	Vishnugad Pipalkoti /THDC	Central	Uttarakhand	U-1 to U-	444	Jun'2026
6	Shongtong Karcham/HPPCL	State	Himachal Pradesh	U-1 to U-	450	Nov'2026
7	Mankulam/ KSEB Ltd.	State	Kerala	U-1 to U- 2	40	May'2026
		Sul	o-Total (FY 20	026-27)	5408	

### Chapter 2.2(e) Hydro Capacity addition program for 2027-2028

F Y. 2	2027-28					
S.No	Project Name/ Impl. Agency	Sector	State	Unit No.	Capacity (MW)	Anticipated Trial Run Date
1	Teesta- VI /NHPC	Central	Sikkim	U-1 to U-4	500	1
2	Kwar/CVPPL	Central	Jammu & Kashmir	U-1 to U-4	540	2
3	Chanju-III /HPPCL	State	Himachal Pradesh	U-1 to U-3	48	3
		Su	b-Total (FY 2	2027-28)	10	88

#### Chapter 2.2(f) Hydro Capacity addition program for 2028-2029

<b>FY.</b> 2	2028-29					
S.No	Project Name/ Impl. Agency	Sector	State	Unit No.	Capacity (MW)	Anticipated Trial Run Date
	Sunni Dam /SJVNL		Himachal	U-1 to		
1	Sumii Dam /SJ VNL	Central	Pradesh	U-6	382	Apr'2028
2	Tapovan Vishnugad /NTPC	Central	Uttarakhand	U-1 to 4	520	Mar'2029
3	Rammam - III / NTPC		West	U-1 to	120	
3	Ltd.	Central	Bengal	U-3	120	Mar'2029
4	Lakhwar Multipurpose Project /UJVNL St		Uttarakhand	U-1 to U-3	300	Oct'2028
		028-29)	1322			

### Chapter 2.2(g) Hydro Capacity addition program for 2031-2032

<b>FY.</b> 2	2031-32					
S.No	Project Name/ Impl. Agency	Sector	State	Unit No.	Capacity (MW)	Anticipated Trial Run Date
1	Dih an a/NILIDC		Arunachal	U-1 to		
1	Dibang/NHPC	Central	Pradesh	U-12	2880	(Feb'32)
		2880				

# Chapter 2.3(a)

# List of under construction Hydro Electric Projects (above 25 MW)

SI. No	Name of the Project (Executing Agency)	State / UT	District	I.C. (No. X MW.)	Cap. Under Execution (MW)	River/Basin	Date of finish/ commiss ioning	% Physical Progress
	Central Sector							
	NHPC							
1	Subansiri Lower (NHPC)	Arunachal Pradesh/Assam	Lower Subansiri, Ar. Pradesh / Dhemaji, Assam	8x250	2000.00	Subansiri/ Brahmaputra	2026-27 (May'26)	93.00
2	Parbati St. II (NHPC)	Himachal Pradesh	Kullu	4x200	800.00	Parbati/Beas/In dus	2024-25 (Dec'24)	97.00
3	Dibang Multipurpose Project (NHPC)	Arunachal Pradesh	Lower Dibang Valley	12x240	2880.00	Dibang/Brahm aputra	2031-32 (Feb'32)	10.00
4	Teesta St. VI NHPC	Sikkim	South Sikkim	4x125	500.00	Teesta/Brahma putra	2027-28 (Dec '27)	61.00
5	Rangit-IV (NHPC)	Sikkim	West Sikkim	3x40	120.00	Rangit/ Teesta/ Brahmaputra	2025-26 (May'25)	72.00
6	Ratle (RHEPPL / NHPC)	UT of Jammu & Kashmir	Kishtwar	4x205 + 1x30	850.00	Chenab/Indus	2026-27 (Dec'26)	12.00
	CVPPL							
7	Pakal Dul (CVPPL)	UT of Jammu & Kashmir	Kishtwar	4x250	1000.00	Marusadar/ Chenab / Indus	2026-27 (Sept'26)	50.00
8	Kiru (CVPPL)	UT of Jammu & Kashmir	Kishtwar	4x156	624.00	Chenab/ Indus	2026-27 (Sept'26)	32.00
9	Kwar (CVPPPL)	UT of Jammu & Kashmir	Kishtwar	4x135	540.00	Chenab/Indus	2027-28 (Dec '27)	13.00
	SJVN							
10	Luhri-I (SJVN)	Himachal Pradesh	Kullu/Shiml a	2x80+2 x25	210.00	Satluj/Indus	2025-26 (Jan'26)	50.00
11	Dhaulasidh (SJVN)	Himachal Pradesh	Hamirpur/ Kangra	2x33	66.00	Beas/Indus	2025-26 (Nov'25)	56.00
12	Sunni Dam (SJVN)	Himachal Pradesh	Shimla/Man di	4x73+1 x73+1x 17	382.00	Satluj/Indus	2028-29 (Apr'28)	22.00
	THDC							

13	Vishnugad Pipalkoti (THDC)	Uttarakhand	Chamoli	4x111	444.00	Alaknanada/Ga nga	2026-27 (Jun'26)	67.00
14	Tehri PSS (THDC)	Uttarakhand	Tehri Garhwal	4x250	1000.00	Bhilangna/ Bhagirathi/ Ganga	2024-25 (Oct'24)	96.80
	NTPC							
15	Tapovan Vishnugad (NTPC)	Uttarakhand	Chamoli	4x130	520.00	Dhauliganga / Alaknanada & /Ganga	2028-29 (Mar'29)	75.00
16	Rammam-III (NTPC)	West Bengal	Darjeeling	3x40	120.00	Rammam/ Rangit/Teesta Brahmaputra	2028-29 (Mar'29)	40.00
	Sub-To	tal: Central Secto	<u> </u> r		12056.00			
	State Sector							
	APGENCO							
17	Polavaram (APGENCO/ Irrigation Dept., A.P.)	Andhra Pradesh	East & West Godavari	12x80	960.00	Godavari/ EFR	2025-26 (Mar'26)	23.00
18	Lower Sileru Extension (APGENCO)	Andhra Pradesh	Alluri Sitharamaraj u	2x115	230.00	Sileru/ Godavari	2025-26 (Mar'26)	Initial stage of constructio n
	HPPCL							
19	Shongtong Karcham (HPPCL)	Himachal Pradesh	Kinnaur	3x150	450.00	Satluj/ Indus	2026-27 (Nov'26)	50.00
20	Chanju-III (HPPCL)	Himachal Pradesh	Chamba	3x16	48.00	Chanju Nallah	2027-28 (Jul'27)	Initial stage of constructio n
	KSEB							
21	Pallivasal (KSEB)	Kerala	Idukki	2x30	60.00	Mudirapuzha/ Periyar/ Baypore Periyar/ WFR	2024-25 (June'24)	97.00
22	Thottiyar (KSEB)	Kerala	Idukki	1x30+1 x10	40.00	Thottiyar/ Periyar/ / Baypore Periyar/ WFR	2024-25 (April'24 )	97.00
23	Mankulam (KSEB)	Kerala	Idukki	2x20	40.00	Melachery	2026-27 (May'26)	9.00
	APGCL							
24	Lower Kopli (APGCL)	Assam	Dima Hasao & Karbi Anglong	2x55+2 x2.5+1 x5	120.00	Kopili/Brahma putra	2024-25 (Mar'25)	67.00
	BVPCL		5 6					
25	Uhl-III (BVPCL)	Himachal Pradesh	Mandi	3x33.3 3	100.00	Uhl/Beas/ Indus	2024-25 (Dec'24)	95.00

	JKSPDC							
26	Parnai (JKSPDC)	UT of Jammu & Kashmir	Poonch	3x12.5	37.50	Jhelum/ Indus	2025-26 (Dec'25)	58.00
	PSPCL							
27	Shahpurkandi (PSPCL/ Irrigation Deptt., Pb.)	Punjab	Pathankot	3x33+3 x33+1x 8	206.00	Ravi/ Indus	2025-26 (Oct'25)	67.00
	TANGEDC O							
28	Kundah Pumped Storage Phase- I,II&III)	Tamil Nadu	Nilgiris	4x125	500.00	Kundah/ Bhavani/ Cauvery/EFR	2025-26 (Jul'25)	76.00
	UJVNL							
29	Lakhwar Multipurpose Project (UJVNL)	Uttarakhand	Dehradun & Tehri Garhwal	3x100	300.00	Yamuna	2028-29 (Oct'28)	8.00
	Sub-T	Total: State Sector			3091.50			
	Private Sector							
	Statkraft							
30	Tidong-I (Statkraft IPL)	Himachal Pradesh	Kinnaur	3x50	150.00	Tidong/Satluj/I ndus	2025-26 (Jun'25)	94.00
	JSW							
31	Kutehr (JSW Energy Ltd)	Himachal Pradesh	Chamba	3x80	240.00	Ravi/ Indus	2025-26 (Nov'25)	76.00
	Greenko							
32	Pinnapuram (Greenko AP01 IREP Private Limited)	Andhra Pradesh	Kurnool	4x240+ 2x120	1200.00	Pennar Basin	2024-25 (Dec'24)	80.00
		otal: Private Sector	•		1590.00			
	Total:				16737.50			
	l		1	1		1		

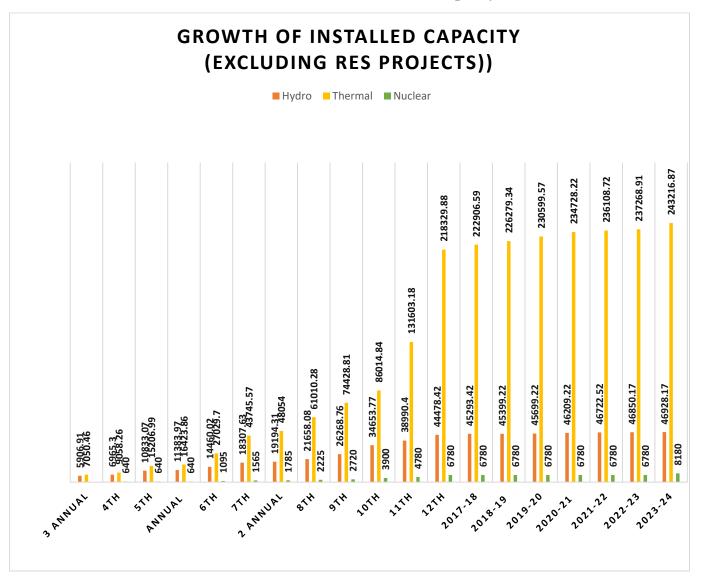
Note:-Presently 32 no. of hydro electric project (above 25 MW) totaling to 16737.5 MW are under active construction.

	List of Hydro Electric Projects (above 25 MW) held-up									
Sl. No.	Name of Scheme (Executing Agency)	Sector	State /District	I.C. ( No. X MW.)	Cap. Under Exe- cution (MW)	River/Basin	Туре	% Physical progress	Present Status	
A	Projects held up due to sub- judice matters									
1	Lata Tapovan (NTPC)	Central	Uttarakhan d/Chamoli	3x57	171	Dhauliganga /Alaknanada & Ganga	RoR	3.8%	Matter is sub-judice. Infrastructure works almost completed. Hon'ble SC stayed construction of 24 HE projects in Uttarakhand including Lata Tapovan. Project is likely to be commissioned 4 years after restart of works. Work stalled since May, 2014.	
2	Maheshwar (SMHPCL)	Private	Madhya Pradesh /Khargone & Khandwa	10x40	400	Narmada/CI RS	RoR	85%	Matter is sub-judice. Works suspended since Nov-11 due to cash flow problem with developer. M.P. Power Management Company Ltd. has terminated the Power Purchase Agreement with SMHPCL on 18.04.2020. The application of PFC has been admitted in NCLT on 27.09.2022 under IBC. CIRP has been put on hold by NCLT vide order dated 17.03.2023 in an application filed by Entegra Ltd. PFC has filed an Appeal before the NCLAT against the NCLT Order dated 17.03.2023 for recommencement of CIRP.Project is likely to be commissioned 2 years after restart of works.	
3	Bhasmey (Gati Infrastructure) Pvt. Ltd.	Private	Sikkim /East Sikkim	2x25.5	51	Rangpo/ Teesta/ Brahmaputra	RoR	30%	Matter is sub-judice. The Court appointed Resolution Professional for Bhasmey HEP stated that works stalled since Sept., 2016. CIRP has been initiated against Gati infra and NCLT has appointed Resolution Professional .The Resolution Professional has received 4 Resolution Plan in the matter of Gati Infrastructure Bhasmey Power Private Limited and are pending	

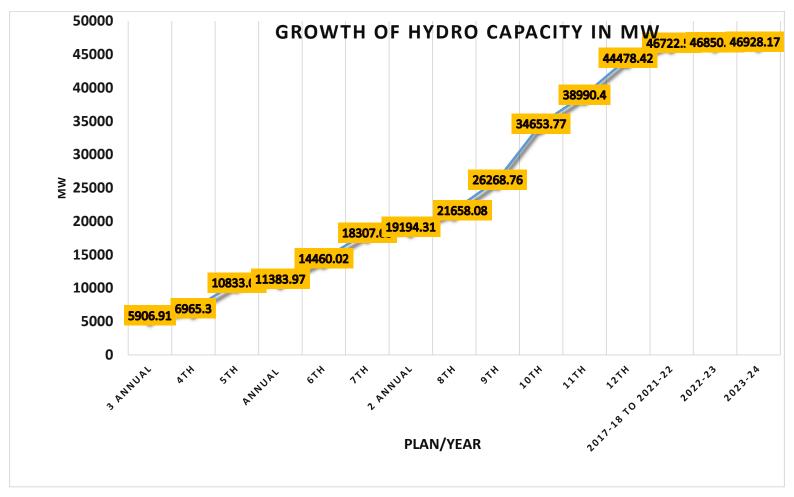
									for approval from the Committee of Creditors. Project is likely to be commissioned 4 years after restart of works.
			Sub to	tal	622				
В	Projects held up due to funds constraints								
1	Tangnu Romai Power Generation Power Ltd.	Private	Himachal Pradesh /Shimla	2x22	44	Pabbar/Tons/ Yamuna/ Ganga	RoR	20%	Works on hold since Aug 2016. Funds constraints with the developer. Project is likely to be commissioned 4 years after restart of works.
2	Rangit-II (Sikkim Hydro) Power Ventures Ltd.	Private	Sikkim /West Sikkim	2x33	66	Greater Rangit/ Teesta/ Brahmaputra	RoR	20%	Works stalled since Dec., 2017. Funds constraints with the developer. Project is likely to be commissioned 3 years after restart of works
			Sub to	otal	110				
С	Project held up due to accessibility to project site								
1	Panan (Himagiri) Hydro Energy Private Ltd.	Private	Sikkim /North Sikkim	4x75	300	Rangyongch u/ Teesta/ Brahmaputra	RoR	Nil	Accessibility to Project site. The permanent bridge over Mantam Lake for accessibility to Dam site is being constructed by Sikkim PWD which is likely to be completed by Nov' 2024. The Financial Institutes are awaiting for completion of bridge, thereafter the process of financing the project can start.  Project is likely to be commissioned 5 years after restart of works.
			Sub to	otal	300				

D	Projects held up due to other issue								
1	Lower Kalnai (JKSPDC)	State	U.T of Jammu & Kashmir /Kishtwar	2x24	48	Chenab/ Indus	RoR	10%	Works on all fronts at Dam and Power House site are stalled since the contract has been terminated by JK Govt. order no. 115-PDD of 2019 dated 08.06.2019. The Balance Work stands tendered out by JKSPDC in EPC mode vide E-NIT on 24.03.2022. Technical evaluation of the bids is completed and financial bids are slated to be opened .Project is likely to be commissioned 4 years after restart of works.
2	Koyna Left Bank (WRD,MAH)	State	Maharashtr a /Satara	2x40	80	Koyna/ Krishna/EFR	PSS	5%	Project stalled since July, 2015. The current expenditure on the project has already reached to almost original administrative approved cost level. The proposal for execution with various options (By WRD/ Through BOT/ By MSPGCL in collaboration with WRD) is under process.Project is likely to be commissioned 4 years after restart of works
3	Phata Byung (MJUPL(Statkr aft))	Private	Uttrakhand /Rudrapray ag	2x38	76	Mandakini/A laknanda Ganga	RoR	74.0%	Works stalled since July, 2017 due to Financial crunch.The project stands alloted to M/s Statkraft IH through NCLT on 23.03.2023. The revival of Environmental clearance is under process. Project is likely to be commissioned 2 years after restart of works.
			Sub to	tal	204				
	Total:				1236				

Chapter 3
Growth of Installed Capacity

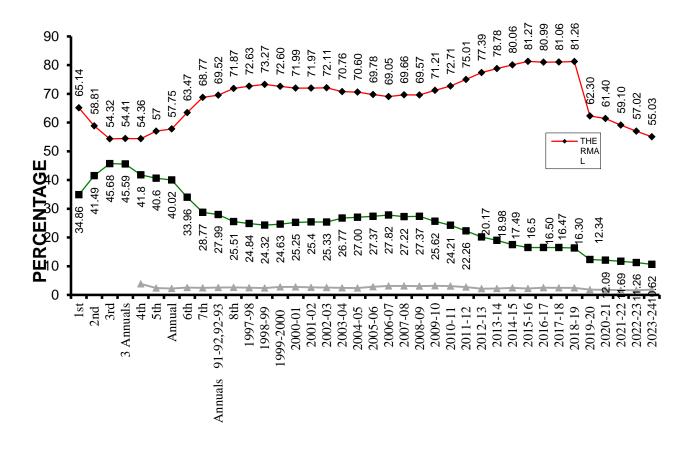


Chapter 3.1
Growth of Hydro Capacity



Chapter 4

## TREND OF CAPACITY ADDITION AS % OF TOTAL (Hydro Thermal mix)



## Chapter 5.1 Sanctioned Under-construction Hydro Electric Projects (Excluding projects under Ministry of New & Renewable Energy)

Sl.	Name of Scheme State I.C.		I.C.	Benefits	Date of
No.			(No. x MW)	(MW)	Approval
	<u>Central Sector</u>				
1	Pakal Dul (CVPPL)	J&K	4x250	1000.00	28.10.14
2	Parbati St. II (NHPC)	H.P.	4x200	800.00	11.09.02
3	Tapovan Vishnugad (NTPC)	Uttarakhand	4x130	520.00	11/2006
4	Subansiri Lower (NHPC)	Ar. Pr./Assam	8x250	2000.00	09.09.03
5	Tehri PSS (THDC)	Uttarakhand	4x250	1000.00	18.07.06
6	Vishnugad Pipalkoti (THDC)	Uttarakhand	4x111	444.00	21.08.08
7	Ramam-III (NTPC)	West Bengal	3x40	120.00	10.09.14
8	Teesta St. VI (NHPC)	Sikkim	4x125	500.00	08.03.19
9	Ratle (Ratle Hydro) (NHPC)	J&K	4x205+1x30	850.00	11.02.21
10	Kiru (CVPPL)	J&K	4x156	624.00	08.03.19
11	Rangit-IV (NHPC)	Sikkim	3x40	120.00	30.03.21
12	Luhri -I (SJVN)	H.P.	2x80+2x25	210.00	20:11:20
13	Dhaulasidh (SJVN)	H.P.	2x33	66.00	01:10:20
14	Kwar (CVPPPL)	J&K	4x135	540.00	11.05.22
15	Dibang Multipurpose Project (NHPC)	Arunachal	4X133	2880.00	
		Pradesh	12x240		
16	Sunni Dam (SJVN)	HP	4x73+1x73+1x17	382.00	04.01.2023
	Sub- total (Ce	ntral Sector) :	L	12056.00	
	State Sector	-			
17	Parnai (JKSPDC)	J&K	3x12.5	37.50	25.10.13
18	Uhl-III (BVPCL)	H.P.	3x33.33	100.00	26.09.03
19	Shongtom Karcham (HPPCL)	H.P.	3x150	450.00	16.08.12
20	Shahpurkandi (PSPCL)	Punjab	3x33+3x33+1x8	206.00	04.05.11
21	Indrasagar Polavaram (PPA)	Andhra Pradesh	12x80	960.00	25.02.09
22	Pallivasal (KSEB)	Kerala	2x30	60.00	31.01.07
23	Thottiyar (KSEB)	Kerala	1x30+1x10	40.00	05.06.08
24	Kundah Pumped Storage-I (TANGENDCO)	Tamil Nadu	4x125	500.00	03.12.08
25	Lower Kopli (APGCL)	Assam	2x55+2x2.5+1x5	120.00	Nov.2020
26	Chanju-III (HPPCL)	Himachal Pradesh	3x16	48.00	
27	Mankulam (KSEB)	Kerala	2x20	40.00	03.03.2022
28	Lower sileru Extension (APGENCO)	Andhra Pradesh	2x115	230.00	24.08.2020
29	Lakhwar Multipurpose Project (UJVNL)	Uttarakhand	3x100	300.00	23.12.2021
	Sub- total (S	tate Sector) :		3091.50	
	Private Sector	_			
30	Tidong-I (Statkraft India Pvt. Ltd.)	H.P.	3x50	150.00	23.07.07
31	Kutehr (JSW Energy (Kutehr)Ltd.	H.P.	3x80	240.00	31.03.10
32	Pinnapuram (Greenko AP01 IREP Private Ltd)	A.P.	4x240+2x120	1200.00	20.04.22
		ivate Sector) :	ı	1590.00	
	Total - Under executi	ion (as on 31.03.202	24)	16737.50	

Chapter 5.2
Sanctioned Hydro Electric Projects for Construction which are held up (Excluding projects under Ministry of New & Renewable Energy)

Sl.	Name of Scheme	State	I.C.	Benefits	Date of
No.			(No. x MW)	(MW)	Approval
	<u>Central Sector</u>				
1	Lata Tapovan (NTPC)	Uttarakhand	3x57	171.00	17.07.12
	Sub- total (Central Secto	or):		171.00	
	State Sector	_			
2	Lower Kalnai (JKSPDC)	J&K	2x24	48.00	16.08.13
3	Koyna Left Bank (WRDMah)	Maharashtra	2x40	80.00	20.02.04
	Sub- total (State Sector	128.00			
	Private Sector	_			
4	Tangnu Romai- I (Tangnu Romai Power Generation )	H.P.	2x22	44.00	30.11.07
5	Phata Byung (LANCO)	Uttarakhand	2x38	76.00	30.11.07
6	Maheshwar (SMHPCL) #	M.P.	10x40	400.00	29.09.06
7	Bhasmey (GATI Infrstructure)	Sikkim	2x25.5	51.00	Dec-08
8	Rangit-II (Sikkim Hydro Power)	Sikkim	2x33	66.00	10.02.10
9	Panan (Himagiri Hydro Energy)	Sikkim	4x75	300.00	07.03.11
	Sub- total (Private Secto	937.00			
	Total - Capacity (as on 31.0	1236.00			

# PFC as lead lender have acquired majority equity i.e. 51% in the SMHPCL w.e.f. 1st June, 2016. Matter Sub-judice.

# Chapter 6 Status of Under Construction Hydro Electric Projects (above 25 MW) in the Country Part A – Under Execution

Sl. No.	Name of Project Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores. Central Sector	State Comm. Sch. (original/ Now Ant.	Broad Present Status / Critical Area	Remarks/ Critical issues
1	Parbati-II NHPC 11.09.2002  4x200 = 800 MW Broad Features: Dam - 85m High, 109. m long at top, concrete gravity type HRT- 6m x 31.23km P.House- Surface 23.5mx 39.7mx 123m. Turbine- Pelton Swyd 13.8/400 kV Cost: Original:3919.59 Latest: 9897.59 (04/20 PL) Contractors Civil: Gammon / Valecha HM: Om Metals E&M: BHEL	H.P. 2009-10 2024-25 (Dec'24)	CIVIL WORKS  Dam & Intake Structure (83.7m high and 3.7m D-shaped intake structure) - Completed.  Head Race Tunnel — Out of Total HRT of 31557m, excavation of 31516.28 and concrete lining of 29209 have been completed.  Power House (23.5m x 39.7m x 123m size): Completed.  Nallah Works - Completed  ELECTROMECHANICAL WORKS: All units synchronized with grid  HYDROMECHANICAL WORKS: All the major HM works completed.	-Slow progress of HRT excavation due to geological constraintsHeavy rainfall since Jul,2023 which has cut off the approach to working fronts in HRT.
2	TapovanVishnugad NTPC  11.08.2004/Nov, 2006 4x130 = 520 MW  Broad Features: Barrage–5 bays of 12m HRT- 5.4m x 11.97km P.House- underground Turbine- V.Pelton Cost: Original: 2978.48	Uttarakhand 2012-13 2028-29 (Mar'29)	CIVIL WORKS Barrage: Excavation Completed and Concreting almost completed. HRT& Adits: Muck removal works have been completed through all the faces of HRT till Nov,2022. Lastly, Face#2 of HRT cleared in Nov,2022 Desilting Chamber: Concreting under progress. Gate erection completed. TRT, Pressure shaft, Surge shaft completed.  E&M works: More than 80% Supply is completed. 2 units are boxed-up and the erection of 3rd unit is 80% complete. The erection agency of M/s BHEL has been demobilized.  Hydro-Mechanical works: a. Damage assessment is completed, repair methodology and required supplies has been chalked out. b. Rate finalization for restoration works &BOI's are under process c. Supplies for Radial Gate & other components and start of balance works is being taken-up with agency in parallel to rate finalization.	construction work in

	<ul> <li>HM Package:             Om Metals</li> <li>E&amp;M Package:             BHEL</li> <li>Switchyard             Package: M/s             GE T&amp;D India             Ltd.</li> <li>GT Package:             ABB Ltd.</li> </ul>			
3	Tehri PSS, THDC, 18.7.06 Nov-11 (Revised CCEA) 4x250=1000 MW Broad Features: Surge Shaft: U/s - 2 nos. D/s - 2 nos Power House: U/G TRT: 2, Dia 9m and Lenghth 1070m & 1160m Turbine: VF reversible pump turbine Cost: Original: 1657.60 Latest:6439.60 (Oct-22PL) Contractors Turnkey: Alstom, France/ HCC	Uttara khand  2010-11 2024-25 (Oct'24)	Unit-1: Pre-commissioning activities underway after successful boxing-up. Unit readiness for synchronization is likely by Jun'24.  Unit-2: Boxing up successfully completed on 26.12.2023. Unit readiness for synchronization is likely by Jul'24.  Unit-3: Rotor lowering successfully completed on 08.03.2024. Unit readiness for synchronization is likely by Aug'24.  Unit-4: Runner and stator have been lowered. Rotor assembly is in progress in service bay. Unit readiness for synchronization is likely by Sep'24.  Civil & Hydro-mechanical Works:  Upstream Surge Shaft-1 & 2 USSS-01 Lining has almost completed. Lining in USSS-02 is likely to be completed by Jun'24  Tail Race Tunnels-1 & 2 (2406 m): Concrete lining of TRT-01 & 02 is completed. Grouting work in both TRTs is under progress.  Dismantling the flood protection wall and accomplish river joining works: As per the discussion with UPID officials and subsequent communication received; the shutdown of Tehri HPP and Koteshwar HEP to complete the river joining works may only be available from 15th May'24/01st Jun'24 to 30th Jun'24. In such case, commissioning of 1st Unit can be achieved by 31st Jul'24 and rest three units in a gap of one month each by Oct'24.	
4	Vishnugad Pipakoti THDC 21.08. 2008 4x111= 444 MW Broad Features: Dam – 65m High, 89.3m long, concrete gravity HRT- 13.4 Km, 8.8m dia Horse shoe shape P. House-Underground 127mx 20.3mx 50m Turbine- Francis SWYD- 13.8/420 kV Cost:Original: 2491.58	Uttara khand 2013-14 2026-27 (Jun'26)	Civil & HM Works: River Diversion has been completed. Construction of U/S Coffer Dam has been completed.  Dam excavation: Around 81% completed. Concreting is in progress.  De-silting Chambers: 97% excavation and 57% lining work completed in all 3 DCs.  HRT by DBM (Total 1.5 kms): 100% excavation completed. Kerb concreting and overt lining completed in the length of 633 m and 542 m respectively.  HRT by TBM (12 kms): 1022 m HRT has been constructed.  Machine Hall: EoT erection is targeted to be completed by Apr-24. In Unit area, benching is in progress and Unit-1 pit excavation is targeted by Apr'24.  Transformer Hall: Excavation has been completed.	-Financial crunch with the civil contractor -Intermittent stoppage of works after the Joshimath subsidence issue Jan'23

			TRT: Around 60% heading excavation has been completed. Electro-Mechanical Works: 48% supply of equipment/ material has been completed.	
5	Subansiri Lower NHPC 09.09.2003 8x250= 2000 MW (1000 MW in 12 <sup>th</sup> Plan) Broad Features: Dam -116m High, concrete gravity HRT- 8 x 9.5m x 1145m Power House- Surface Turbine- Francis SWYD- 16/400 kV Cost: Original: 6285.33 Latest:19992.43 (04/17 PL) Contractors Civil: BGS-SGS-Soma JV HM: Texmaco E&M: Alstom	Arunachal	<ul> <li>➤ Dam (116m high and 284m long):-Cumulative concreting of 99.86 percent achieved.</li> <li>➤ Power House (285m x 61m x 64m size):-cumulative qty. achieved 86.75 percent.</li> <li>HRT- 100 % completed</li> <li>Pressure shaft-96.05% completed</li> <li>➤ E&amp;M Works- 81.12 % completed.</li> <li>➤ HM Works: 87.68 % completed</li> </ul>	Radial Gates erection and Diversion Tunnel plugging are critical activities.
6	Teesta-VI NHPC 08.3.2019 4x125= 500 MW Broad Features: Barrage: 26.5m high HRT- 2nos,27.52km long Pressure shaft: 4nos. 5.4m dia. 151m to 198m length, TRT: 4nos 247m each length, 7.5x7.0m D- shapped. PH- Under ground Turbine- Francis Cost: Original: 3283.08 Latest: 5748.04 (07/2018 PL) Contractors Civil: JAL & Gammon E&M: Alstom	Sikkim  2012-13 2027-28 (Dec'27)	Civil Works: Barrage works - 76.48 %, SFT works -18.96%, De-silting basin - 84.27%, Intake area - 1.91%, HRT works -36.26%, Surge Shaft/ Surge Gallery -83.05%, Pressure shaft - 81.40%, Power house works - 90.69%, and TRT Works - 93.16% has been completed.  HM Works: Supply and erection works - 55.57% completed.  E&M Works: 54.33% completed.	Poor geology in HRT.
7	Rammam-III  NTPC Hydro Ltd.  10.09.14  3x40 = 120 MW  Broad Features: Run of the River Scheme  Cost: Original: 1381.84  Latest : 1592.34  Contractors  • Barrage and Part  HRT Package: M/s  Simplex  Infrastructures Ltd  & M/s Apex-Encon  Project Pvt Ltd  (JV))-	West Bengal <u>2019-20</u> 2028-29 (Mar'29)	<ol> <li>Civil &amp; HM Works         <ul> <li>Barrage Excavation and concreting are 99% and 31.73% done, respectively</li> <li>Power House Excavation and concreting are 99.55% and 55% done, respectively</li> </ul> </li> <li>Tail race tunnel concreting and surge shaft excavation is completed</li> <li>HRT - As of now, 2737.2 m HRT has been excavated</li> <li>Electromechanical Works         <ul> <li>Electromechanical package is 45.83 % completed.</li> <li>S/Y -Tower, Beam, AC kiosk, Bus stringing, Equipment structure and main equipment installation</li> </ul> </li> </ol>	Heavy flood hit the Barrage area on 18.06.2023 and upstream of Barrage and equipment including access road were washed away/damaged      Work progress affected supply of construction materials has been hampered due to damage in some patches of NH 10 since 04.10.2023 due to flash flood of Sikkim (Road re-opened)

	Power-House and Part HRT Package: M/s SEW Infra Ltd.  EM Package: M/S BHEL-		completed.  Earth mat laying work is under progress completion (95 % completed).  *Contract for Barrage and part HRT Pkg awarded t M/s Simplex Apex Encon JV has been terminated o 09.02.2024.	for Heavy vehicle movement from 24.12.2023
8	Pakal Dul CVPPL 03.10.2006 4x250 = 1000 MW Broad Features: Dam – 167m High, Width- 305m), CFRD, HRT- 2 nos. 7.2m dia 1000m long S.Shaft-16m dia 200m Height P.House- Underground (157mx20.20mx49m) TRT- 5.5m dia, 125m long. Cost: Original:8112.12 Latest: 8112.12 Contractors Civil: Afcons – JAL – JV L&T,JAL HM: PES E&M: Voith Hydro Ltd	J&K 2020-21 2026-27 (Sept'26)	<ol> <li>Civil Works are 32.4% completed         <ul> <li>Works of Diversion Tunnel completed</li> <li>TBM-1 348.5 m out of total 7350m excavation is done</li> <li>TBM-2 55 % assembly is done</li> </ul> </li> <li>HM Works are 43.6% completed         <ul> <li>Erection of 2.9 M dia. Pressure Shaft Liners of Lower Horizontal Portion PS1B and PS2 is in progress as 54.6 m each have been completed.</li> <li>Erection of Lower Horizontal Portion, 2.9 dia Including Connection with MIV-PS1A is complete</li> <li>Erection of Top Horizontal Portion of PS-2 &amp; PS-1 of 6 M dia is 170 out of 173.66 mtr &amp; 200.4 out of 211.43 mtr is done</li> </ul> </li> <li>E&amp;M Works are 64.2% completed         <ul> <li>Erection of Draft tube of all 4 units completed.</li> <li>Stator build up works of U#1&amp;2, Spiral casing erection of Unit#3 is in progress</li> </ul> </li> </ol>	<ul> <li>HRT &amp; Dam works are critical.</li> <li>Launching of TBM -2—         Inordinate delay due to the delay in arranging required Crane for erection of TBM-2 by M/s L&amp;T</li> <li>Surge Shaft 1- Delay anticipated in excavation due to treatment of hill slopes overlooking SS top due to Geological conditions/         Topography.</li> </ul>
9	Kiru CVPPL 13.06.2016 4x156=624 MW Broad Features: Dam – 135m High, Width- 193m), Concrete gravity, Penstock 4nos., 5.5m dia. P.House- Underground (182mx23.6mx51.2m) TRT- 4 nos., 7.0m dia, 165 to 190m long. Cost: Original:4287.59 Latest: 4287.59 Contractors Civil: Patel Engg. HM: PES Engineers E&M: Andritz Hydro	J&K 2023-24 2026-27 (Sep'26)	1. Civil Works are 28.5% completed  • Construction of Coffer Dam, PH Cavern, TH Cavern, Adit to Pressure Shaft top & bottom is in progress  • Dam abutment stripping and dam excavation below the riverbed is in progress  • DT works completed and River Diversion achieved  • Excavation of all TRTs is done  2. HM Works are 21% completed  • Detailed Design Engineering/ manufacturing & supply of HM components is in progress.  • Erection of Pressure Shaft Steel Liner started in Bottom Horizontal Pressure Shaft #3  3. E&M Works are 46.8% completed  • Detailed Design Engineering/ manufacturing and supply of E&M equipment is in progress.  • About 81% D&E Works completed	The project is in the initial stage of construction.
10	Ratle	<u>J&amp;K</u>	• Improvement / Construction of Roads: -	•

Ratle Hydro Electric	:	Completed.	
Project Pvt. Ltd. / N	HPC <u>2017-18</u>	River Chenab was diverted through DT-2 on	
19.12.2012	2026-27	27.01.2024	
4x205+1x30=850  N	IW ( <u>Dec</u> '26)	<b>Excavation in Power House</b>	
<b>Broad Features:</b>		Power House excavation (58%)	
Dam Height-133m		Dam abutment excavation (81%)	
Length-194.8m		Pressure shaft erection chamber Excavation:	
Spillway-Radia Gate	e-(5)	63%.	
Size-10.75x1420 m		Surge Chamber Cavern Excavation:: 46%	
Diversion Tunnel:2	*	Burge Chamber Cuvern Executation. 1070	
Circular (Right back	*		
Pressure Tunnel:11n	n dia	Toil Dage Tunnel (TDT) Exception (190)	
each.		Tail Race Tunnel (TRT) Excavation (18%) Achieved.	
Pressure Shaft : 6.6	m	Achieved.	
each steel lined.			
P.House-Undergroun	nd		
Turbine- Francis			
Average Gross Head	ļ <del>-</del>		
100.39m			
Addl. Unit(30MW)			
Housed in Main P.H			
Cavity)			
Rated Head-98.9m			
Cost:			
Original: Rs 5281.94	<u> </u>		
<u>Crore</u>			
Latest Rs. <u>5281.9</u>	4		
Crore			
Contractors			
Civil & HM : GVK			
E&M : Alstom			

11	Rangit-IV Jal Power corp. Ltd. 06.07.2007 3x40= 120 MW Broad Features: Dam: Concrte 44m high .HRT: D- 6.4m L- 6.5km Power House: Surface Turbine: Francis Cost: Original:726.17     Latest: 938.29 (10/19 PL) Contractors Civil: Ritwik (27.08.2021) HM: PES (28.06.2021) E&M: Andritz (08.07.2021)	Sikkim  2011-12 2025-26 (May'25)	<ol> <li>Civil Works: works are in progress as</li> <li>Dam &amp; Intake works – 85.43%</li> <li>HRT – 59.54%</li> <li>De-silting chamber - 94.55%</li> <li>Pressure shaft – 86.63%</li> <li>Power House &amp; TRC – 75.52%</li> <li>Surge shaft - 95.55% has been completed.</li> <li>HM Works:         <ul> <li>Supply and erection works – 45.94% completed.</li> </ul> </li> <li>E&amp;M Works: 66.02% completed.</li> </ol>	-Poor rock and adverse geology in HRTMethane in HRT
12	Luhri Stage-1 SJVN Ltd. 01.05.2018 2x80+2x25=210 MW Broad Features:	<u>Himachal</u> <u>Pradesh</u> 2025-26 2025-26	Civil and HM works     Dam excavation: In progress and cumulative 7,30,873 cum (87%) out of 8,37,912 cum Completed.	-Work hampered in monsoon due to overtopping of coffer dam and accumulation of silt

	Dam: 86 m high HRT: 9m dia 38 km length Power House:Underground Turbine: Francis Cost: Original - 1810.56(05/2020)  Contractor: Civil: Luhri Hydro Power Consortium dt. 24.11.2020  E&M works: Voith Hydro dt. 16.7.2021  Transmission line from Switchyard to Polling station: M/s Kalpatru Power dt. 6.7.2022	(Jan'26)	<ul> <li>Dam concreating:,3,421 cum out of 4,33,790 cum completed.</li> <li>Power house Excavation: 4,90,320 cum (98%) out of 4,99,615 cum completed and Concreting of Columns and Beams is completed.</li> <li>Tail Race Channel: - 5,93,058 cum (93%) out of 6,40,220 cum completed.</li> <li>Design/drawings of draft tube, EOT crane, spiral case, pit liner assembly, turbine shaft seal assembly, runner assembly, and generator foundation and generator stator frame &amp; core assembly have been approved.</li> <li>Draft tube liners for three units out of four received at site.</li> <li>DT liner for 4th unit is under transportation. Manufacturing of Spiral case &amp; EOT crane is in progress</li> </ul>	
13	Dhaulasidh Hydro Electric Project SJVN Ltd (2x33 MW = 66 MW)  Cost: Original: Rs. 687.97 Cr  Civil & HM works: M/s Rithwik Projects Pvt. Ltd. dt. 6.5.2021  EM works: M/s Voith Hydro dt. 19.1.2022	Himachal Pradesh  2025-26 2025-26 (Nov '25)	<ul> <li>1. Civil and HM works</li> <li>Dam concreating:, 61,364 cum out of 3,11,450 cum completed</li> <li>Power house Excavation: up to unit pit is completed</li> <li>Power house Concreting: 7,694 cum out of 32,225 cum completed</li> <li>Excavation of Tail race tunnel is completed</li> <li>Coffer Dam is completed and river diversion is achieved</li> <li>2. E&amp;M Works:</li> <li>All three segments of DT placed and welding is in progress. Fabrication of spiral case &amp; stay ring for unit-1 completed and for unit-2 is in progress.</li> </ul>	Works hampered in monsoon due to flash flood.
14	Kwar Hydro Electric Project, CVPPPL (4x135 MW = 540 MW)  Cost: Original: Rs. 4526.12 Cr  Civil works: M/s Patel Engg. Limited dtd. 11.05.2022	UT of J&K 2027-28 (Dec'27)	1. Civil works: 10.2% completed DT portal development, DT Excavation & Benching and CVT Excavation have been completed and River Diversion has been achieved on 15.01.2024. Excavation of MAT, PH Crown Excavation, Surge Gallery, GIS Cavern excavation, stripping of Dam Abutments, TC approach tunnel and Construction of Coffer dam are in progress. Upstream Coffer Dam Excavation (1st stage)- Cumulative 15000 Cum has been completed. Upstream Coffer Dam Excavation (Main)- 20800 cum progress out of 75000 cum has been made till date  2. HM works The issued NIT No: CVPP/C&P/Kwar/HM-PKG/2022 dated 11.08.2022 (of 2nd instance) has been cancelled on 15.06.2023 and re-tendering is in process 3. EM works The Board of CVPPL in its 80th Meeting has resolved for cancellation of	

15	Sunni Dam SJVN  4x73+1x73+1x17=382  MW  Cost: Original: Rs. 2614.51 crs (05/21) Civil & HM works: M/s Rithwik Projects Pvt. Ltd. dt. 14.1.2023  EM works: Yet to be awarded	Himachal <u>Pradesh</u> 2027-28 2028-29 (Apr'28)	current tendering process of E&M Works Package of Kwar HE Project and has directed for re-tendering. Re-tendering process is in progress  • Diversion Tunnel work is completed • Dam work: Stripping for dam left abutments above EL 660 m: In progress and cumulative 26,305 cum out of 1,21,130 cum completed • Power house: Main Access Tunnel Excavation 55 m out of 605 m completed	
16	Dibang HEP, NHPC (12x240=2880MW)  Cost: Rs. 31876.39 Cr  Infrastructure Works: M/s L&T dated 27.02.2023	Arunachal Pradesh 2031-32 (Feb'32)	The project is in initial stage of construction, therefore various pre – construction activities involved like mobilization of man and machinery, site cleaning, development of access roads and infrastructural facilities etc.	

В	State Sector			-
17	Parnai JKSPDC 21.10.2013 3x12.5= 37.5 MW Broad Features: Barrage: 107m Long, 11.7m High HRT: D Shape, 9236m long, 3.2m dia Surge Shaft: 3.2m Dia Power House- Surface- 60x12x28 Cost: Original: 640.86 Latest 640.86 Contractors Civil: Patel & Alstom E&M: Andritz	UT of J&K 2017-18 2025-26 (Dec,25)	The implementation of the project has been undertaken by awarding the EPC contract in favour of M/s. Patel Engg. Ltd. in 2013.  Barrage (107m long, 11.7m high and 7m wide concrete structure):- Barrage concrete works completed 35990.98m out of 39446m. excavation work 47740out of 48698 is completed.  HRT (D-shaped, 3.2m diameter, 9.156km long):- 6800.5 RM out of 9236 m excavation completed. 774 m out of 9236 m lining completed.  Surge Shaft (3.2m dia):-  Pressure shaft (1 no., 2m dia, 1733m long):- Excavation 20791.50 cum out of total 34560 cum completed. 2002.25 cum out of 7497 cum concreting has been completed.  Power House (Surface 60x12x28m):- Excavation 62081.72 cum out of total 65000 cum completed.  Overall physical progress: 58.44%  Financial Progress: 50.03%	- Slow progress of works - Contractual Issues.
18	Shahpurkandi Irrigation Deptt. &PSPCL 04.05.2011 3x33+3x33+1x8=206 MW Cost: Original: 1835.50 Latest 2368.55 (Power Component) Contractors	Punjab  2015-16 2025-26 (Oct'25)	Main Dam: Overall 95% work of Main Dam portion has been completed.  Hydel Channel: Almost 95% works has been completed.  Power House: Excavation completed. Concreting started and 28% completed. Physical progress:67%	Delay in E&M works is critical for schedule commissioning.

	Civil & HM for Main Dam		E&M: Initial stage of procurement of	
	with two Head Regulators:		equipment.	
	Soma – BUREYA JV Power Houses : M/s OMIL		Draft tube liner works for two units completed. The E&M contract with BHEL has been revised	
	JV		and procurement of equipment is under process.	
	E&M:BHEL			
19	Uhl-III Beas Valley Power Corporation Ltd. (HPSEB) 19.09.02 / (TEC -2x50 MW) 3x33.3 =100 MW (Revised vide HPSEB letter dt. 19.01.07. Broad Features: HRT-4.15m x 8.47 km S.Shaft- 13m x 68.8m Penstock- 3.4m x 1851.946 m (main) P.House- Surface Turbine- V. Francis Cost: Original: 431.56 Latest:1281.52 Contractors Civil: Continental / Abir HM: PES	<u>H.P.</u> 2006-07 2024-25 (Dec'24)	All civil works completed.  E&M works: Dry test of all units completed.  Restoration works of pen stock &E&M equipment are under process.  Fabrication of Steel Ferrules and erection is under process.  Dismantling/marking of foundation has been started from 16.02.2024  Overall Physical Progress: 95%	
	E&M:BHEL			
20	Shongtong Karcham H.P. Power Corpn. Ltd. Clearance: 16.08.2012 3x150= 450 MW Broad Features: Intake Tunnel: 4 Nos. Horse shoe 6.4m dia 192 to 280m length HRT- Circular, 10.5m dia, 8096m long. Power House- Under ground Turbine- VF. Switchyard: 400 Kv. Cost: Original: 2807.83 Latest: 2807.83 Contractors Civil & HM: Patel E&M: Andritz	H.P. 2016-17 2026-27 (Nov'26)	<ul> <li>▶ Barrage (95.40m long at top):-         Downstream Coffer Dam completed.         Upstream Coffer Dam 84% completed.         </li> <li>▶ Barrage Work:- 54.71% of excavation completed. Concreting 3.89% completed.         </li> <li>▶ Power Intake:- 29.% Excavation completed.         </li> <li>▶ Desilting chamber (4 nos. each of 260 m length x 17m width x 22.80 m depth):-</li></ul>	Dam is critical due to change in design and approval of same.

			<ul> <li>E&amp;M Works:-Supply 63.9% completed. Erection yet to start. Overall E&amp;M works 59.26% completed</li> <li>Draft Tube:-50.83% excavation completed</li> <li>Physical progress:50.65% in March'24.</li> <li>Financial Progress: 56.23%</li> </ul>	
21	Polavaram APGENCO / Irrigation Deptt., A.P. 21.07.2010/ 25.02.2009 12x80= 960 MW Broad Features: ECRF Dam- L-2454 m, H-57.9m, Spillway- L-1128m, Spill gate -48 Nos. Approach channel-175m. Intake tunnel: Ø 9m, L- 130m (12 Nos) Power House- Surface type, Turbine- Vertical Kaplan Tail Race Channel- 1130m. Cost: Original: 4956.39 Latest:5338.95 (Power Component) Contractors Civil :Navyug contract terminated and awarded to M/s Megha Engineering and Infrastructure Ltd. (MEIL) (EPC contractor) E&M: BHEL	Andhra Pradesh 2017-18 2024-26 (Mar'26)	Pressure Tunnels (1 to 12): Erection: Completed – 208 Nos., Balance- nil. Concreting: Completed – 204 Nos., Balance - 51 Nos. U/s Transition: Completed – 1048Cum, Balance -4552 Cum D/s Transition: Completed – 7258 Cum, Balance -8142 Cum Power House area – Concreting work: Completed:18691 Cum, Balance: 64109Cum. Civil work 20.64%, HM work 1.42% E&M work 1.66% Infrastructure Works: 0% Overall Physical progress: 23.72%	
22	Lower Sileru extension APGENCO 2x115 = 230 MW 24.08.2020 Contractors M/s SSEL-PES Consortium Cost: Original: 571 (2020-21) Latest: 571 (2020-21)	Andhra Pradesh 2025-26 (Mar'26)	Project is in initial stage of construction.  Overall Physical Progress: 15.3%  Overall Financial Progress: 15.3%	
23	Pallivasal KSEB 2x30= 60 MW 31.01.2007 Broad Features:  HRT: 3.50m X 3396m Surge Shaft: 7.0m X 49m Pressure Shaft: 2.50m X 1019.20m Penstock: 2.nos., 1161.20m each. Power House: Surface	Kerala 2010-11 2024-25 (June'24)	Civil Works: 99. 50% completed. HM Works: 98.80% completed. E&M Works: 84% completed. Intake structure: Intake structure completed HRT: completed. Invert conc: 3347m/3347m completed. Surge Tank/Forebay: Excavation completed. Conc.843/843 cum. Pressure Shaft: Excavation - Completed. Surface penstock: comleted. Fabrication of ferrule completed, Erection completed.	

	Turbine: Pelton S. Yard: 220kV – Single bus Cost: Original: 222.00 Latest: 550.00 Contractors Single Package (Except Intake & balance Tunneling works) ESSAR – DEC – CPPL JV -M/s Bumi-Zillion JV (for Intake works & balance Tunneling works) -M/s Anchor structure- PSE-SSIPCJV, M/s. Shri Sarvasana Industries Pvt. Ltd.		Power House: Building completed. Tail race Channel (2 Nos.): Excavation & lining completed. The overall progress achieved: - 96.86%. The overall financial progress achieved:-96.29%.	
24	Thottiyar KSEB 1x30 + 1x10= 40 MW 05.06.2008 Broad Features: Weir: 222m Long 11 blocks 7.5m height Tunnel: Circular 2.6m dia 199m long. Power House: Surface Turbine: Vertical Pelton Cost: Original: 136.79 Latest: 280 Contractors Civil & HM: PRIL- Sri Sarvana Industries	Kerala  2012-13 2024-25 (April'24)	-Civil & HM works re-awarded to M/s PRIL-Sri Sarvana Industries Pvt. Ltd. on 05.01.2018. KSEB decided to execute E&M works departmentally & tendering was awarded to M/s Fitwell.  Civil Works: Weir: Excavation – completed, Concreting – completed. Approach Channel & Intake: Excavation works 100% completed. Tunnel – 100% works completed. Penstock, Anchors, Rocker support: Excavation – 87.24% completed, concreting completed, Fabrication and erection of penstock 100% completed. Power house , switch yard and allied works: Excavation – 95.47%, Concreting – 67.54% completed. Bridge – 100% works completed. E&M works Unit 2 30 MW – load sharing work and unit 1 10 MW – machine hand rail earthing works under process Physical Progress 96.70%	
25	Mankulam KSEB 2 X 20 = 40 MW 03.03.2022 Broad features: Dam: Concrete, straight gravity HRT:3.6mX2473m Surge shaft: Dia- 8m, top level of surge – 719.11m Pressure shaft: 1 no. Dia- 3m, Area – 7.07m2, Length – 398m Penstock: 2 Nos. 30m x2.3m Turbine: Pelton Max. gross head: 323.43m Cost: 600Cr. (2016)	<u>Kerala</u> <u>2026-27</u> (May'26)	Civil Works: 6.75%completed. HM Works: Not yet started. E&M Works: Not yet tendered. Intake structure: Leading channel of Water conductor system excavated. HRT: Excavation -850 m completed., Surge Tank/Forebay: Erection of Gantry crane progressing. Pressure Shaft: Excavation -511.6m. Power House: Excavation progressing Bridge and road: Bridge completed and opened for traffic. Dam: Block 7&8 Rock excavation is progressing. Overall Physical progress: 8.9 1% Overall Financial progress: 6.48%	

26	Contractors CIVIL & HM: M/s. PES Engineers Private Limited - M/s KSR Infracon Private Limited, Joint Venture (PES-KSR JV  Kundah Pumped storage (Phase-I, Phase-II & Phase-III) TANGEDCO 4x125= 500 MW Broad Features: HRT: Ø 8.5mX1247.33m. Surge Shaft: Ø (28m/16m/10m) x68m depth. Pressure Shaft: 2 Nos. Ø 5.50m X 463.38 m (each) Penstock: 4.nos. Ø 3.9m x45.4m each. Power House: Under Ground. Tail race surge chamber: 10m(W);52m(L):48m(H) Tail Pace Tuppel:	Tamil Nadu  2022-23 2024-25 (Jul'25)	Civil & H&M Works: - Phase-I, Package I & II (Civil and HM works), LOI issued for package - I to M/s Patel engineering, and for package - II M/s Kundah PSP Consortium on 15.02.2018. The site was handed over on 05.03.2018.  MAT & CCVT: Mining works completed. Lining in CCVT to be done.  ADITS in Power House & TRT, HRT Complexes: Mining works completed.  Power House: Mining completed fully mining in 4 Nos. Bus ducts completed. Draft tube pit and drainage pit excavation completed, service bay raft concreting laying completed. Service bay column concrete 12 nos completed. Service bay and Machine hall concrete under progress.  TRT Surge Tank: Mining works completed. Transformer Cavern Mining completed fully.	
27		Assam		
	MW Broad Features: Dam: Conc. Gravity HRT- Circular, 7m dia, 3.64Km long. Power House- Surface Turbine- VF. Switchyard: 220 Kv. Cost: Original:1115.91 Latest:1795 Contractors Civil: L&T	2023-24 2024-25 (Mar'25)	HRT: Concrete: 55% Overall Physical progress – 67%	
28	Chanju-III H.P. Power Corpn. Ltd. Clearance: 14.07.2015 3x16= 48 MW Broad Features:	H.P. 2027-28 2027-28 (Jul'27)	Civil Works — Approach road from existing PWD road to power house are in progress  Adit -1 of HRT 136.60 m long — Excavation work completed	

	HRT- D shape, 5090m long. Power House- Under ground Turbine- Vertical shaft Pelton Cost: Original: 418.57     Latest: 418.57 Contractors Civil & HM: MFB- ACNC (JV) E&M:		HRT – excavation from Adit-4, installation of temporary span is in process (80 % completed)	
29	Lakhwar Multipurpose Project (UJVNL) Clearance: 23.12.2021 3x100= 300 MW Cost: Original: 5747.17. Latest: 5747.17	Uttara khand 2028-29 2028-29 (Oct'28)	Letter of Acceptance (LOA) has been issued to M/s L&T Limited for the work of "Balance civil works for Construction of 204m high concrete gravity dam, Intake, (3X100 MW) capacity underground Power House and appurtenant works on river Yamuna of Lakhwar Multipurpose Project in District-Dehradun/Tehri Garhwal (Uttarakhand)" on 01.02.2023.	
С	Private Sector			
30	Tidong-I M/s Statkraft India Pvt. Ltd. 3x50 = 150 MW 28.07.2006 Broad Features: HRT-D-3.5m L- 8461 m P.H. Surface Turbine -Vertical Pelton Cost: Original 543.15 Latest 1850 Contractors Civil &HM: SCL Infratech / Himalaya E&M: Alstom	H.P. 2021-22( New Developer) 2024-25 (June'24)	M/s Statkraft India Pvt Ltd has acquired the 100% equity of the project on 04.09.2018  River Diversion Works: Excavation completed and 32144/37159 cum concreting completed.  Head Works: Head works for the project are nearing 99.14% completed.  HRT (8409m): HRT Excavation completed. 8356/8409 m lining completed.  Surge Shaft: Surge shaft Excavation completed & Lining (24 m) out of 89m 34% completed.  Pressure Shaft: Pressure Shaft excavation completed (1.4 km). 471.77m out of 1388m lining has been completed.  Powerhouse (Surface) & Tail-race Channel (4 m wide open channel, 50 m long): Power House external building construction completed. Overall, 98% Power House civil works has been completed.  E&M Works: 100 MW, 100% works completed. 50 MW, 55% completed. T Line – 57% completed.  Overall physical progress achieved is 94.57%.	- Pressure shaft &Transmission Line critical.
31	Kutehr M/s JSW Energy (Kutehr) Ltd. 3x80 = 240 MW 31.08.2010 Broad Features:	H.P. 2024-25 2025-26 (Nov'25)	Civil works, HM works and E&M works awarded on 20.10.2019, 19.09.2019 and 13.02.2020 respectively. River diversion was achieved on 25.01.2020.  Barrage (27m high): Concreting of Upstream keys &Apron floor(85m) completed.	-

	Cost: Original: 1798.13 Latest: 2879 Contractors Civil &HM: M/s Angelique – PCC consortium, M/s MF BumiGeotech Pvt. Ltd. & M/s. PES Engineers Pvt. Ltd. E&M: M/s Andritz Hydro Pvt Ltd.		Concrete of Left Half of barrage: 73076.85 cum completed out of 75000 cum.  HRT: Six out of Six Construction Adits to HRT completed,14566.35 m out of 14566.35 m of Head Race Tunnel 03 daylighted on 27.10.2023 completed.  Civil Works: 36.9%  E&M Works: 12.3%  HM works: 10.2% Infrastructure Works14.2%  Miscellaneous:4.2%  . Physical Progress 73.80%	
32	Pinnapuram PSP Greenko Energy 20.4.2022 4x240+2x120=1200 MW  Broad Features: Upper reservoir: FRL 463m Dam height-40m from ground level  Lower reservoir: FRL 337m Dam height-38m from ground level  Pressure Shaft: 5, 7.5m dia, 83.5 m- long P.House-Surface Turbine-Vertical Francis reversible pump turbine Cost: Original: 6465.22 Latest: 6465.22 Contractors E&M: M/s Andritz Civil: M/s Megha	Andhra Pradesh 2024-25 2024-25 2024-25 (Dec'24)	Upper Reservoir and Upper Intake: Excavation- 100% progress achieved. Concreting and erection: Upper reservoir-88% completed. Upper intake -64% completed.  Pressure Shaft: Excavation (5,08,644 cum), Fabrication (17,667 cum) and Erection( 17,667 cum)-98% & 75% and 67% completed respectively.  Power House: Excavation (11,67,862 cum) completed. & Concreting (69%) completed.  Lower Reservoir, Lower Intake and Tail Race Channel: All Excavation & lower reservoir embankments completed. Out of (40,834 cum) Tail Race Channel lining works 57% completed. Downstream intake and RCC works – 64% completed.  E&M works: Power House – installation of DT segments ,DT cone, Foundation ring, Spiral segment, stay ring of unit 1 to 4 completed. Stator & Rotor service way from unit 1&2 in progress.  • Generator Components: 90% delivered to site  • Turbine components: 40% delivered to site, majority of balance material being assembled directly at Andritz workshop, 1 unit is ready for dispatch  • All Draft Tubes delivered to site  • Stay ring for all Units delivered to site.  • Turbine Shafts: 5 Units delivered to site.  • Turbine Shafts: 5 Units delivered to site.  • Spiral case segments: All Units delivered to site.	The developer is planning an additional two units of 240MW each.

#### Part B – Held up

	Name of Project	State	Broad Present Status / Critical Area
Sl. No.	Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores.	Comm. Sch. (original/ Now Ant.	DAVIN A LEGISLO SIMILIST CITATION
A	Central Sector		
1	Lata Tapovan, NTPC Aug-2012 3x57= 171 MW Broad Features: Barrage-14 bays of 11m each HRT- 7.51 Km, 4.7m dia P.House- underground Turbine- V.Francis Cost: Original: 1527.00 Latest: 1801.07 Contractors Civil & HM: L&T E&M: BHEL	Uttara khand 2017-18 2028-29 (Subject to re-start of works)	<ul> <li>Construction work stopped vide Hon'ble Supreme Court order dated 7.5.14.</li> <li>Since then, various hearings had been held but the matter is yet to be concluded. Last hearing was held on 22.08.2022, wherein Hon'ble Supreme Court issued the order for listing the matter on 11.10.2022. Matter is likely to be listed on 17.01.2024.</li> <li>Meanwhile, M/s L&amp;T have raised claims of nearly Rs 336 Cr for disruption to Civil &amp; HM Package awarded to them. The dispute pertaining to the claim was under arbitration. Award for the same has been passed by Ld. Arbitral Tribunal on 20.05.2022. The award has been challenged by both parties in the Hon'ble High Court of Delhi. Next hearing listed on 12.03.2024.</li> <li>The contract of EM package, which was awarded to BHEL has been fore-closed on 28.07.2021.</li> <li>Matter is sub-judice. Infrastructure works almost completed. Hon'ble SC stayed construction of 24 HE projects in Uttarakhand including Lata Tapovan. Project is likely to be commissioned 4 years after restart of works. Work stalled since May, 2014.</li> </ul>
В	State Sector		
2	Lower Kalnai JKSPDC 16.08.2013 2x24= 48 MW Broad Features: Dam: 110m Span, 49m High HRT: D Shape, 3960m long, 4m dia Surge Shaft: 14m Dia Power House- 55x23.45x32.4 Cost: Original: 576.87 Latest 576.87 Contractors Civil: Coastal E&M: GE	UT of J&K 2017-18 (Commissi oning Subject to re-start of works)	- Works on all fronts at Dam and Power House site are stalled since the contract has been terminated by JK Govt. order no. 115-PDD of 2019 dated 08.06.2019. The Balance Work stands tendered out by JKSPDC in EPC mode vide E-NIT on 24.03.2022. Technical evaluation of the bids is completed and financial bids are slated to be opened .Project is likely to be commissioned 4 years after restart of works.
3	Koyna Left Bank PSS WRD, Mah. 20.02.2004 2x40 = 80 MW Broad Features: Water from the existing ShivajiSagar Lake (Koyna reservoir) is to be utilized for generation. Intake Tunnel: Dia – 7.20 M Length – 235.5 M (including Lake tap) HRT: Dia – 7.20 M Length – 80 M	Maharashtr a 2014-15 2027-28 (Subject to re-start of works)	Project stalled since July, 2015. The current expenditure on the project has already reached to almost original administrative approved cost level. The proposal for execution with various options (By WRD/ Through BOT/By MSPGCL in collaboration with WRD) is under process. Project is likely to be commissioned 4 years after restart of works.

С	Penstock – 2 nos "Dia – 2.9M Length – 10 M each P.House – Underground Turbine – Reversible Cost: Original: 245.02 Latest: 1403.77 Contractors Civil &HM: BT Patil – Malaxmi JV / Patel E&M: LitostrojSlovania&Koncar, Croatia  Private Sector		
4	T D I	IID	Washa as hald since Ave 2016. Founds constraints with
4	Tangnu Romai-I M/s Tangnu Romai Power generation 2x22= 44 MW 30.11.2007 (TEC by HPSEB) Broad Features: Barrage at EL ± 2555 m HRT-3.1m dia& 7.220 km length Surge Shaft- 5m dia, Top Level 2570 m & Bottom Level 2520 m Penstock- 2 m dia& 609.3 m length P.House- Surface Turbine – Vertical Francis Cost: Original;255.00 Latest:641.89 Contractors Civil & HM : Sai Urja E&M : Andritz	H.P.  2014-15 (Subject to re-start of works)	Works on hold since Aug 2016. Funds constraints with the developer. Project is likely to be commissioned 4 years after restart of works.
5	Phata Byung M/s Statkraft India pvt ltd 23.03.2023 2x38 MW = 76 MW Broad Features: Dam - 26m high HRT- 3.2 m dia& 9.38 km length Turbine - Frances Cost: Original: 520.00 Latest: 1132 Contractors Civil: Lanco HM: Cimmco E&M: Alstom	Uttara khand  2012-13 (Subject to re-start of works)	- Works severely affected due to flash floods in June, 2013 Works stalled since July, 2017 due to Financial crunch with the contractor / developer. The company is undergoing a corporate insolvency resolution process initiated under IBC for resolution and revival of the project since June 2020. Under this process, the resolution professional appointed by the NCLT initiated the process for inviting prospective investors for the project. On 25.02.2022, the CoC approved the Final Statkraft IH Holding AS Resolution Plan by a majority of 100%. The Resolution Professional has filed for approval of the resolution Plan Application before the Hon'ble NCLT. The Allahabad bench of the National Company Law Tribunal approved the resolution. According to the resolution plan, Statkraft will pay a total of ₹180 crore including ₹149.61 crore to secured financial creditors within 90 days of approval of the resolution plan and ₹27.8 crore towards meeting the payment for costs of the corporate insolvency resolution proceedings Works stalled since July, 2017 due to Financial crunch. The project stands alloted to M/s Statkraft IH through NCLT on 23.03.2023. The revival of Environmental clearance is under process. Project is likely to be commissioned 2 years after restart of works.

6	Maheshwar, SMHPCL 30 12 96/29.9.2006 (FC) 10x40= 400 MW Broad Features: Dam-35m High, concrete gravity P.Shaft-10x7.82m x 52m P.House - Surface Turbine- Kaplan Cost: Original: 1569.27 Latest: 8121.00 Contractors Civil & HM : Sew E&M : BHEL	M. P.  2001-02  (Subject to re-start of works)	Matter is sub-judice. Works suspended since Nov-11 due to cash flow problem with developer. M.P. Power Management Company Ltd. has terminated the Power Purchase Agreement with SMHPCL on 18.04.2020. The application of PFC has been admitted in NCLT on 27.09.2022 under IBC. CIRP has been put on hold by NCLT vide order dated 17.03.2023 in an application filed by Entegra Ltd. PFC has filed an Appeal before the NCLAT against the NCLT Order dated 17.03.2023 for recommencement of CIRP.Project is likely to be commissioned 2 years after restart of works
7	Bhasmey Gati Infrastructure 2x25.5= 51 MW Broad Features: Dam-33.2m High, Symmetrical gravity HRT-5.3m dia&5.132 km length, Circular. Surge Shaft- 89.8m Hight& 14m dia. P.House-Outdoor Turbine-VF TRT-2 Nos, L- 50m Swityard-132/11 KV Cost: Original: 408.50 Latest: 746.01 Contractors Civil: Simplex E&M: Voith	Sikkim  2012-13 (Subject to re-start of works)	- Matter is sub-judice. The Court appointed Resolution Professional for Bhasmey HEP stated that works stalled since Sept., 2016. CIRP has been initiated against Gati infra and NCLT has appointed Resolution Professional. The Resolution Professional has received 4 Resolution Plan in the matter of Gati Infrastructure Bhasmey Power Private Limited and are pending for approval from the Committee of Creditors. Project is likely to be commissioned 4 years after restart of works.
8	Rangit-II Sikkim Hydro Power Limited 10.02.2010 2x33= 66 MW Broad Features: Dam-47m High, Concrete Gravity HRT-3.9m dia&4.745 km length, Surge Shaft- 65.5m High & 10m dia. Underground Pressure Shaft: 1.7 m dia& 2.5 km length. P.House-Outdoor Turbine- Pelton Vertical Swityard- GIS, 132/11KV Cost: Original: 496.44 Latest: 496.44 Contractors Civil &HM: Coastal E&M: Gammon	Sikkim  2015-16 (Subject to re-start of works)	Works stalled since Dec., 2017. Funds constraints with the developer. Project is likely to be commissioned 3 years after restart of works
9	Panan Himagiri Hydro Energy Pvt. Ltd. 07.03.2011 4x75= 300 MW Broad Features: Dam-115m from deepest foundation level	Sikkim  2018-19 (Subject to re- start of works)	- Accessibility to Project site. The permanent bridge over Mantam Lake for accessibility to Dam site is being constructed by Sikkim PWD which is likely to be completed by Nov' 2024. The Financial Institutes are awaiting for completion of bridge, thereafter the process of financing the project can start. Project is likely to be commissioned 5 years after restart of works.

Desilting Chambers: Underground, 2 Size (14Lx22Wx2.5H) HRT- modified horse shoe, 6 m dia& 9549m length, Surge Shaft- 102 m High & 15m dia. Pressure Shaft: 2/4, 3.4/2.4m dia, 707.4 m- Long P.House-Surface Turbine-Vertical Francis Cost: Original: 1833.05 Latest: 2675.00 Contractors Civil: Essar	
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#### Chapter-7.1 Financial Status of under construction HEPs

Sl. No.	Name of project/ State	Capacity (MW)	Benefits (MW)	Cost (PL)	Anticipat ed Cost (PL)	Cost Overr un	Total Expend . Upto Mar'21	Actual Expendit ure till March 2022	Actual Expend. During FY2022- 23 (till Mar'23)	Total Expend . (till Mar'20 23)	Actual Expend. During FY2023- 24 (till Mar'24)	Total Expendit ure upto (Mar'24)
	Under Execution											
	<u>Central</u> <u>Sector</u>											
1	Pakal Dul (CVPPL)	4x250	1000	8112.12	8112.12	_	1894.99	2223.86	698.42	2922.28	1155.52	4077.8
	J&K			(03/2013)	(03/2013)							
2	Parbati - II(NHPC)	4x200	800	3919.59	11134.54	7214. 95	8848.44	9596.51	833.94	10430.4 5	696.22	11126. 67
	H.P.			(12/2001)	(07/2022)							
3	Tehri PSP (THDC),	4x250	1000	1657.60	6439.60	4782	3940.54	4497.78	792.97	5290.75	996.30	6287.0 5
	Uttarakhan d			(12/2005)	(10/2022)							
4	Tapovan Vishnugad (NTPC)	4x130	520	2978.48	7700.00	4721. 52	4893.42	5292.43	512.13	5804.56	493.82	6298.3 8
	Uttarakhan d			(03/2004)	(4th Qtr/2022)							
5	Vishnugad Pipalkoti (THDC)	4x111	444	2491.58	3860.35	1368. 77	2207.95	2454.35	534.70	2989.05	520.14	3509.1 9
	Uttarakhan d			(03/2008)	(02/2019)							
6	Ramam-III (NTPC)	3x40	120	1381.84	1381.84	0	660.06	774.98	96.06	871.04	171.20	1042.2 4
	West Bengal			09/2014	09/2014							
7	Subansiri Lower (NHPC)	8x250	2000	6285.33	19992.43	13707 .1	13606.6	15506.40	2603.69	18110.0 9	2723.79	20833. 88
	Ar. Pradesh/As sam			(12/2002)	(01/2020)							
8	Teesta St. VI (NHPC)	4x125	500	5748.04	5748.04	_		1440.5	877.84	2318.34	1125.93	3444.2 7
	Sikkim			(07/2018)	(07/2018)							
9	Ratle (NHPC)	4x205 + 1x30	850	5281.94	5281.94	0		10.36	152.38	162.74	485.26	648
	J&K			(11/2018)	(11/2018)							
10	Kiru (CVPPL)	4x156	624	4287.59	4287.59		491.03	707.60	292.40	1000.00	637.18	1637.1 8
	J&K Luhri-I	2.00.		(07/2018)	(07/2018)							1429.9
11		2x80+ 2x25	210	1810.56	1810.56		417.96	645.19	448.60	1093.79	336.15	1429.9
	H.P. Rangit-IV			(05/2020)	(05/2020)	212.1						1006.9
12	(NHPC)	3x40	120	726.16	938.29	212.1		209.43	347.17	556.60	450.33	3
	Sikkim Dhaulasidh			(2011-12)	(10/2019)							
13	Dhaulasidh (SJVN)	2x33	66	688	688		144.32	226.89	152.63	379.52	212.14	591.66
13	Himachal Pradesh			(05/2020)	(05/2020)					517.52	212.11	271.00

14	Kwar (CVPPPL)	4x135	540	4526.12	4526.12			136.17	245.38	381.55	210.86	592.41
14	(CVIIIL)			(09/2020)	(09/2020)					361.33	210.00	372.41
	Dibang	12x24	2880	31876.39	31876.39			2000.14	91.16			2307.2
15	(NHPC)	0	2000					2000.14	71.10	2091.30	215.99	9
	Sunni Dam	4x73		(05/2021)	(05/2021)							
16	(SJVN)	+1x72 +1x17	382	2614.51	2614.51	Nil		265.99	178.62	444.61	231.65	676.26
				(03/2021)	(03/2021)							
A	Sub Total: Central Sector		12287.00	84385.82	116392.32		37105.39	45988.58	8999.90	54846.67	10662.48	65509.15
	State Sector											
17	Parnai	3x12.	37.50	640.86	640.86	-	241.17	287.25	62.82	350.07	53.06	403.13
	J&K	3		(NA)	(NA)		241.17	201.23		330.07	33.00	403.13
18	JAK	3x33.	100	431.56	2400	1968.			336.35			
10	Uhl-III	33	100	(09/2002)	2400	44	2084.87	2150.91	330.33	2487.26	274.74	2762
	H.P. Shontong											2085.4
19	Karcham	3x150	450	2807.83	2807.83	_	1320.32	1503.74	189.63	1892.14	193.34	8
	H.P.			(07/2011)	(07/2011)							
20	Shahpurka ndi #	3x33+ 3x33+ 1x8	206	1835.50	2368.55	533.0 5	1483.42	1799.12	427.28	2226.40	373.06	2599.4 6
	Punjab			(4/2008)	(2/2018)							
21	Polavaram HEP (PPA)	12x80	960	3013.68	5338.95	2325. 27		802.18	230.11	884.89	451.12	1336.0
	Andhra Pradesh			(2010-11)	(2016-17)							
22	Pallivasal (KSEB)	2x30	60	222	550	328	395.43	436.76	63.66	500.42	46.84	547.26
	Kerala			(1999)	(2018)							
23	Thottiyar (KSEB)	1x30 +	40	136.79	280	143.2 1	124.24	134.95	30.86	165.82	14.82	180.63 9
	Kerala	1x10		(2007)	(2018)							
24	Kundah Pumped Storage-I	4x125	500.0 0	1216.59	3401	2184. 41	340.71	476.83	927.31	1404.14	930.24	2334.3 8
	Tamil Nadu / (TANGEN DCO)			(2007-08)	(2014)							
25	Lower Kopili	2x55+ 2x2.5 +1x5	120	1116	1795			478.63	2.00	808.93	476.05	1284.9
	Assam				(2021)			., 3.03		300.73	113.00	
26	Mankulam	2x20	40	600	600				104.38	104.38	25.08	129.46
	Kerala(KS			(2016)	(2016)							
27	EB) Chanju-III (HPPCL)	3x16	48.00	418.57	418.57					45.41	34.01	79.42
	H.P.											
28	Lakhwar Multipurpo se Project (UJVNL) Uttarakhan	3x100	300.0	5747.17	5747.17					438.46	110.63	549.09
	d	2 117	220.0									
29	Lower Sileru Extension	2x115	230.0								101.25	101.25

	Note:-It is to	mention	that inve		tentative (un hly progress i		as furnishe	d by the deve	lopers in the	?		
	Total : (Under Execution)		16,968.50	1,11,378.87	1,46,388.38	39488.8 5	44,366.52	57,860.31	15,715.86	74555.67	15810.44	90366.113
C	Sub-total: Private Sector		1590. 00	8806.50	3648.13		1270.97	3801.36	4341.56	8400.68	2684.15	11084.8
32	Pinnapura m (Greenko)	4x240 +2x12 0	1200. 00	6465.22	6465.22			1632.26	3657.34	5289.26	3606.00	8895.2 6
	H.P.			(09/2011)	(09/2011)							
31	Kutehr (JSW Energy (Kutehr)Lt d.	3x80	240.0	1798.13	1798.13		412.97	995.00	427.22	1579.49	525.28	2104.7
	H.P.			(06/2018)	(06/2018)							
30	Tidong-I	3x50	150	543.15	1850.00	1	858.00	1174.10	257.00	1431.50	390.66	1905.66
	Private Sector											
В	Sub-total: State Sector		3091.50	18186.55	26347.93		5990.16	8070.37	2374.40	11308.32	2463.81	13772.133
	Andhra Pradesh											

#### Chapter-7.2 Financial Status of under-construction HEPs which are held up

Sl. No.	Name of project/ State	Capacity (MW)	Benefit s (MW)	Cost	Ant .Cost.	Cost Overr un	Total Expend. Upto Mar'21	Actual Expendit ure till March 2022	Actual Expend. During FY2022-23 (till Mar'2023)	Total Expend. (till Mar'2023	Actual Expend. During FY2023-24 (till Mar'24)	Total Expendit ure upto (Mar'24)
				(PL)	(PL)							
	Under Execution					_						
	Central Sector	_	_	_	-							
1	Lata Tapovan( NTPC)	3x57	171	1527.0 0	1527.00	0	149.21	149.93		149.93	0.00	149.93
1	Uttarakha nd			(07/20 12)	(07/2012		147.21	147.73		147.73	0.00	147.73
A	Sub Total: Central Sector		12287.0 0	1527.0 0	1527.00		149.21	149.93	8999.90	149.93	0.00	149.93
	State Sector									11,000	0.00	11,7,7,0
2	Lower Kalnai	2x24	48	576.87	576.87	-		*	0		0.00	
	J&K			(NA)	(NA)							
3	Koyna Left bank PSS	2x40	80	245.02	379.78	134.7 6	165.39	*	0.00		0.00	
	Maharasht ra			(1999)	(2014)							
В	Sub-total: State Sector		128.00	821.89	956.65		165.39	0.00	2374.40	11308.32	2463.81	13772.133
	Private Sector					2010						
4	Tangnu Romai- I	2x22	44	255.00 (1/200	641.89	386.8 9		*			0.00	
	H.P.			7)	(2018)							
5	Phata Byung	2x38	76	520.00	1132.00	612		*			0.00	
	Uttarakha nd			(2013- 14)	(9/2016)							
6	Maheshw ar	10x40	400	1569.2	6793.00	5223. 73		Nil			0.00	
	M.P.			(1996- 97)	(2016- 17)							
7	Bhasmey	2x25. 5	51	408.50	746.01	337.5 1		Nil			0.00	
	Sikkim			(2012- 13)	(03/2018							
8	Rangit- II	2x33	66	496.44	496.44	_		*			0.00	
	Sikkim			(2011- 12)	(2011- 12)	0.00						
9	Panan	4x75	300	1833.0 5	2671.00	837.9 5	155.10	0.05	100.38	100.43	-100.43	

	Sikkim		(2009)	(2018)							
	Sub-total: Private	937.00	5082.2 6	12480.3 4		155.10	0.05	100.38	9400 60	2694.15	11004.02
С	Sector								8400.68	2684.15	11084.83
	Total : (Under	13,352.	7,431.	14,963.9	7532.	469.70	149.98	11.474.68			
	Execution	00	15	9	84	402.70	147.70	11,474.00			
	):								19858.93	5147.96	25006.893
	Note:-It is to mention that investment data is tentative (un-audited) as furnished by the developers										
	in the monthly progress reports										

Total expenditure excludes the stalled projects of state and private sector.

Chapter 8.1
Status of Environmental and Forest Clearance of Under Construction Hydro Electric Projects

	Status of Enviro		u rorest Clearai	lee of Chae				
					Date of	Date of	Date of	Date of
Sl.	Name of	State	I.C.	Benefits	TEC	Env.	Forest	I.
No.	Project		(No.xMW)	(MW)	Clearance	clearance	Clearance	Approval
	U							• • •
T	C41 C4							
I	Central Sector							
	Pakal Dul				03.10.06	12.07.12	15.12.15	28.10.14
1	(CVPPL)	J&K	4x250	1000				
2	Parbati-II (NHPC)	H.P.	2x400	800.00	03.01.01	04.06.01	04.09.2001	11.09.02
	Tehri PSS				10.10.88	19.07.90	04.06.87	18.07.06
3	(THDC)	Utt.	4x250	1000.00	10.10.00	17.07.70	01.00.07	10.07.00
	Tapovan	Ott.	IAZSO	1000.00	11.08.04	08.02.05	22.04.06	11/2006
				520.00	11.06.04	08.02.03	22.04.00	11/2000
	Vishnugad	T.T.,	4 120	520.00				
4	(NTPC)	Utt.	4x130					
	Vishnugad			444.00	09/2006	22.08.07	28.05.13	21.08.08
5	Pipalkoti (THDC)	Utt.	4x111	111.00				
	Ramam-III	W.B.	3x40	120.00	12.09.06	17.08.07	18.10.08	10.09.14
6	(NTPC)							
	Subansiri Lower	Ar.						
7	(NHPC)	Pr./Asm.	8x250	2000.00	13.01.03	16.07.03	24.06.2004	09.09.03
7	(NHFC)	11.//\dill.						
					27.12.20			
8	Teesta St. VI	Sikkim	4x125	500.00	06	21.09.06	23.05.2008	08.03.2019
	Dadla (NIIDC)				19.12.20			
9	Ratle (NHPC)	J&K	4x205+1x30	850.00	12	12.12.12	15.10.14	11.02.2021
	Kiru (CVPPL)				13.06.20			
10	ima (C vi i E)	J&K	4x156	624.00	16	24.06.16	19.05.16	08.03.19
10		Sikkim	3x40		06.07.20	24.00.10	17.03.10	30.03.2021
1.1	Rangit-IV	SIKKIIII	3840	120.00		16.05.07	26 12 07	30.03.2021
11					07	16.05.07	26.12.07	
	Luhri -I (SJVN)				01.05.20	17.03.20		20.11.2020
12		H.P.	2x80+2x25	210.00	18	20	28.03.2019	20.11.2020
	Dhaulasidh			66.00	25.06.20	21.02.20		01.10.2020
13	(SJVN)	H.P.	2x33		11	13	11.08.2020	01.10.2020
	Dibang	Arunach		2880.00	18.09.20	19.05.20	12.03.2020	27.02.2023
	Multipurpose	al		2000.00	17	15		
14	Project (NHPC)	Pradesh	12x240		1,	15		
17		Tradesii		382.00				
	Sunni Dam		4x73+1x73+1	362.00	11.02.20	04.02.20		04.01.2023
15	(SJVN)	HP	x17		21	22	23.08.2022	
	Kwar (CVPPPL)			540.00	23.02.20	10.04.20		11.05.2022
16		J&K	4x135		17	17	08.08.2014	11.05.2022
	C-1-4-4-1	1	-4	12057.00				
		(Central Se	ector):	12056.00				
II	State Sector							
	Parnai (JKSPDC)	J&K	3x12.5	37.50	11.12.19	24.12.20		
17		JAK			92	10	17.05.2013	25.10.2013
18	Uhl-III	H.P.	3x33.33	100.00	19.09.02	15.11.02	20.12.02	26.09.03
13	Shongtong	H.P.	3x150	450.00	16.8.12	19.05.11	22.03.11	
19	Karcham	11.1.	3,1130	750.00	10.0.12	17.03.11	22.03.11	
17			2-22 2 22 1	206.00	00/2000	10 11 01	Mad D : 1	04.05.11
20	Shahpurkandi	Punjab	3x33+3x33+1	206.00	08/2009	18.11.81	Not Reqd.	04.05.11
20			x8					
	Indrasagar	Andhra	12x80	960.00	21.07.20			
21	Polavaram (PPA)	Pr.			10	28.07.10	21.07.10	25.02.09
						Not		
22	Pallivasal Extn.	Kerala	2x30	60.00	31.01.07	Reqd.	11.07.07	31.01.07
	Thottiyar	Kerala	1x30 + 1x10	40.00		Not		
23	1110111741	ixciaia	1720   1710	40.00	05.06.08	Reqd.	11.07.07	05.06.08
	V.m.d.al. D 1	T'1	A105	500.00				
	Kundah Pumped	Tamil	4x125	500.00	15.02.18	08.05.07	27.11.08	03.12.08
	Storage-I	Nadu						
24	(TANGENDCO)							
1	Lower Kopli	Assam	2x55+2x2.5+1	120.00	24.05.16	04.09.20	04.12.2020	Nov,2020
25	(APGCL)		x5			19		
<u> </u>	` /			1	l .			1

				1	T	T	T	1
	Chanju-III				14.07.20	29.09.20	11.10.2019	
26	(HPPCL)	H.P.	3x16	48	15	17		
	Mankulam	Kerala	2 x 20	40.00	03.03.20	Not	11.07.2007	03.03.2022
27	(KSEB)				22	required		
	Lakhwar	Uttarakh	3x100	300.00	14.12.20	02.02.20	31.01.2014	23.12.2021
	Multipurpose	and			12	21		
28	Project (UJVNL)							
	Lower Sileru	Andhra	2x115	230.00	Not	24.04.20	04.08.2022	24.08.2020
	Extension	Pradesh			required	23		
29					_			
	Sub-total (State Sector):			3091.50				
III	Private Sector							
30	Tidong-I	H.P.	3X50	150.00	_	18.06.08	18.06.08	23.07.07
31	Kutehr	H.P.	3x80	240.00		05.07.11	19.02.13	31.03.10
32	Pinnapuram		4x240+2x120	1200.00	20.04.22	14-07-	23-04-2020	
	(Greenko AP01	A.P.				2020	Stage-I	
	IREP Private Ltd)							
	,							
	Sub-total	1590.00						
		16737.50						
	101111	Total: Under Execution						

#### Chapter 8.2

	Status of Envir	onmontal and	Forest Clears	nee of Und		on Hydro Flor	otrio Projects (l	old up)
Sl. No.	Name of Project	State	I.C. (No.xMW)	Benefits (MW)	Date of TEC Clearance	Date of Env. Clearance	Date of Forest clearance	Date of I. Approval
I	Central Sector				00.00.0	21.02.05	20.04.05	01.00.10
1	Lata Tapovan (NTPC)	Utt.	3x57	171.00	08.02.06	21.02.07	30.04.07	01.08.12
	Sub-tota	al (Central Sec	ctor):	171.00				
II	State Sector							
2	Lower Kalnai (JKSPDC)	J&K	2x24	48.00	16.08.2013	22.08.2014		16.08.2013
3	Koyna Left Bank PSS	Mah.	2x40	80.00	-	16.05.07	Not Reqd.	20.02.04
	Sub-to	otal (State Sect	or):	128.00				
III	Private Sector							
4	Tangnu Romai- I	H.P.	2x22	44.00	-	01.05.09	19.01.10	30.11.07
5	Phata Byung	Uttarakhand	2x38	76.00	-	01.05.09	-	30.11.07
6	Maheshwar	M.P.	10x40	400.00	-	07.01.94	Not Reqd.	29.09.06
7	Bhasmey	Sikkim	2x25.5	51.00	-	15.05.07	13.09.10	-
8	Rangit- II	Sikkim	2x33	66.00	-	16.04.10	22.10.10	10.2.10
9	Panan	Sikkim	4x75	300.00	-	02.01.07	21.09.10	07.03.11
	Sub-tot	al (Private Sec	tor):	937.00				
	To	tal : Capacity	1236.00					

## Chapter 9.1(a)

Status of Civil Package Award (First Package) of Under Construction Hydro Electric Projects

Sl.	Name of Project	State	Capacity	Benefits	Date of CCEA/	Date of letter
No.			(MW)		Investment	of award
	Central Sector					
1	Pakal Dul(CVPPL)	J&K	4x250	1000.00	28.10.14	21.02.2018
2	Parbati-II (NHPC)	H.P.	4x200	800.00	11.09.02	11.09.2002
3	Tehri PSP	Uttarakhand	4x250	1000.00	18.07.06	23.06.2011
4	Tapovan Vishnugad (NTPC)	Uttarakhand	4x130	520.00	11/06	11/2006
5	Vishnugad Pipalkoti (THDC)	Uttarakhand	4x111	444.00	21.08.08	17.01.2014
6	Ramam-III	W.B.	3x40	120.00	10.9.14	10.09.2014
7	Subansiri Lower (NHPC)	Ar.Pr./ Assam	8x250	2000.00	09.09.03	19.12.2003
8	Teesta St. VI	Sikkim	4x125	500.00	08.03.19	31.03.2020
9	Ratle (NHPC)	J&K	4x205+1x30	850.00	11.02.2021	18.01.2022
10	Kiru (CVPPL)	J&K	4x156	624.00	08.03.2019	24.02.2020
11	Rangit-IV	Sikkim	3x40	120.00	30.03.2021	27.08.2021
12	Luhri -I (SJVN)	H.P.	2x80+2x2	210.00	20.11.20	24.11.2020
13	Dhaulasidh (SJVN)	H.P.	2x33	66.00	01.10.2020	06.05.2021
14	Dibang (NHPC)	Arunachal Pradesh	12x240	2880.00	27.02.2023	27.02.2023
15	Sunni Dam (SJVN)	H.P.	4x73+1x73+1x17	382.00		
16	Kwar (CVPPPL)	J&K	4x135	540.00	11.05.2022	11.05.2022
	Sub-total (Central Sector):	7 7 7 7		12056.00		
	State Sector			1200000		
17	Parnai (JKSPDC)	J&K	3x12.5	37.50	21.10.2013	25.10.2013
18	Uhl-III	H.P.	3x33.33	100.00	19.09.02	02.04.2003
19	Shongton Karcham	H.P.	3x150	450.00	16.08.12	04.08.2012
20	Shahpurkandi	Punjab	3x33+3x33+1x8	206.00	04.05.11	11.02.2013
21	Indrasagar Polavaram (PPA)	Andhra Pr.	12x80	960.00	21.02.2012	20.12.2017
22	Pallivasal	Kerala	2x30	60.00	31.08.07	31.01.2007
23	Thottiyar	Kerala	1x30 + 1x10	40.00	05.06.08	22.12.2008
23	Kundah Pumped Storage-I	Tamil Nadu	4x125	500.00		15.02.2018
24	(TANGENDCO)				03.12.08	
25	Lower Kopli (APGCL)	Assam	2x55+2x2.5+1x5	120.00	Nov,2020	21.08.2020
26	Chanju-III (HPPCL)	H.P.	3x16	48.00	14.07.2015	07.10.2022
27	Mankulam (KSEB)	Kerala	2 x 20	40.00	03.03.2022	03.03.2022
28	Lakhwar Multipurpose Project (UJVNL)	Uttarakhand	3x100	300.00	23.12.2021	01.02.2023
29	Lower Sileru Extension	Andhra Pradesh	2x115	230.00	24.08.2020	24.08.2020
	Sub-total (State Sector):			3091.50		

	Private Sector					
30	Tidong-I	H.P.	3X150	150.00	23.07.07	07.11.2008
	Kutehr (JSW Energy	II D	3x80	240.00		20.10.2019
31	(Kutehr)Ltd.	H.P.			31.03.10	
32	Pinnapuram (Greenko AP01 IREP Private Ltd)	A.P.	4x240+2x120	1200.00		: 21.05.2020
	Sub-total (Private Sector):		I	1590.00		
	Total - Un	16737.50				

## **Chapter 9.1(b)**

Status of Civil Package Award (First Package) of Under Construction Hydro Electric Projects (held up)

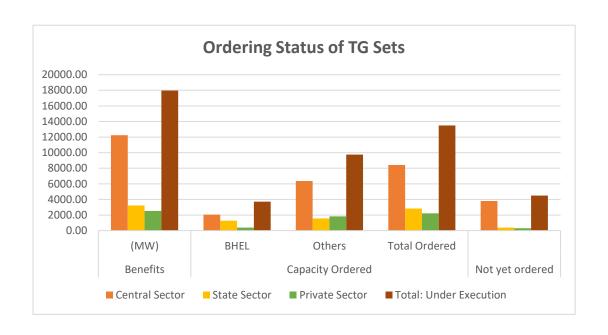
Sl.	Name of Project	State	Capacity	Benefits	Date of CCEA/	Date of letter
No.			(MW)		Investment	of award
	Central Sector					
1	Lata Tapovan (NTPC)	Uttarakhand	3x57	171.00	08/2012	17.08.2012
	Sub-total (Central Sector):			171.00		
	State Sector					
2	Lower Kalnai (JKSPDC)	J&K	2x24	48.00	16.08.2013	12.09.2013
3	Koyna Left Bank PSS	Mah.	2x40	80.00	20.02.04	20.06.2007
	Sub-total (State Sector):			128.00		
	Private Sector					
4	Tangnu Romai- I	H.P.	2x22	44.00	2014-15	14.06.2010
5	Phata Byung	Uttarakhand	2x38	76.00	06.10.08	12.04.2008
6	Maheshwar	M.P.	10x40	400.00	30.12.96	20.02.1997
7	Bhasmey	Sikkim	2x25.5	51.00	Dec-08	12.04.2010
8	Rangit-II	Sikkim	2x33	66.00	10.02.10	24.10.2011
9	Panan	Sikkim	4x75	300.00	07.03.11	22.02.2014
	Sub-total (Private Sector):	1	1	937.00		

**Total - Under Execution:** 

1236.00

Chapter 9.2

Ordering Status	of TG sets for Un	der Const	ruction H	ydro Electric Pi	rojects					
Summary- Units Ordered										
Sector	Benefits	(	Capacity O	Not yet ordered						
	(MW)	BHEL	Others	Total Ordered						
Central Sector	12227.00	2055.00	6370.00	8425.00	3802.00					
State Sector	3219.50	1266.00	1565.50	2831.50	388.00					
Private Sector	2527.00	400.00	1827.00	2227.00	300.00					
Total: Under Execution	17973.50	3721.00	9762.50	13483.50	4490.00					



#### Chapter 9.2

Ordering Status of TG sets of Under Construction Hydro Electric Projects

Sl. No.	Name of the Project/State	Capacity (No.x MW)	Benefits (MW)	Make/Supplier of TG set	Date of Order
Α.	Central Sector				
	BHEL Units				
1	Parbati-II (NHPC),(H.P.	4x200	800.00	BHEL	24.12.02
2	Tapovan Vishnugad (NTPC), Utt.	4x130	520	BHEL	01/2008
3	Lata Tapovan, Uttarakhand	3x57	171	BHEL	12/2012
4	Vishnugad Pipalkoti (THDC)	4x111	444	BHEL	18.11.14
5	Ramam-III (NTPC)	3x40	120	BHEL	19.02.15
	Sub-total- BHEL		2055.00		
	Other Units				
6	Tehri PSP (THDC)	4x250	1000.00	Alstom, France	27.07.11
7	Subansiri Lower (NHPC), Ar. Pr.	8x250	2000.00	Alstom, France & India	11.02.05
8	Teesta St. VI, (Sikkim)	4x125	500.00	Alstom, India	04/2009
9	Pakal Dul(J&K)	4x250	1000.00	Voith Hydro Pvt. Ltd.	01/2019
10	Rangit-IV, (Sikkim)	3x40	120.00	Andritz Hydro, India	28.08.09
11	Kiru (CVPPL)	4x156	624.00	M/s Andritz Hydro Pvt. Ltd.	24.02.20
12	Luhri -I (SJVN)	2x80+2x25	210.00	Voith Hydro Pvt. Ltd.	16.07.21
13	Dhaulasidh (SJVN)	2x33	66.00	Voith Hydro Pvt. Ltd.	19.01.2022
14	Ratle (J&K)	4x205+1x30	850.00	M/s Megha Engineering & Infrastructures Limited	18.01.2022
	Sub-total- Others		6370.00		
	Sub-total (Central Sector):		8425.00		
В	State Sector				
	BHEL Units				
15	Uhl-III (H.P.) BVPCL	3x33.33	100.00	BHEL	15.02.07
16	Shahpurkandi, Punjab; PSPCL	3x33+3x33+1x8	206.00	BHEL	28.02.14
17	Polavaram (PPA) Andhra Pr.	12x80	960.00	BHEL	30.03.21
	Sub-total- BHEL		1266.00		
	Chineese				
18	Pallivasal, Kerala ;KSEB	2x30	60.00	Dongfang Elec.Corp., China	31.01.07
19	Thottiyar, Kerala KSEB	1x30 + 1x10	40.00	Chongqing, China	22.12.08
	Sub-total- Chineese		100.00		
	OTHER UNITS				
20	Koyna Left Bank PSS, Maharashtra	2x40	80.00	IVRCL Ltd	16.12.10

21       Shontong Karcham, H.P.       3x150       450.00       Andritz Hydro, India       04.03.1         22       Parnai (JKSPDC) J&K       3x12.5       37.50       Andritz Hydro, India       -         23       Lower Kalnai (JKSPDC) J&K       2x24       48.00       GE Power India Pvt. Ltd.       -	
	-
23 Lower Kalnai (JKSPDC) J&K 2x24 48.00 GE Power India Pvt. Ltd	
	28.11.2019
24 Kundah Pumped Storage-I (Tamil Nadu)  4x125 500.00 Megha Engineering & Infrastructure Ltd.	
25 Lower Kopli (APGCL) 2x55+2x2.5+1x5 120.00 M/s ANDRITZ HYDRO Private Ltd 09.09.2	09.09.2021
26 Lower Sileru Extension 2x115 230.00 M/s Shirdi Sai Electricals & M/s PES Engineers Private Ltd 13.04.2	13.04.2022
Sub-total- Others 1466	
Sub-total (State Sector): 2831.50	
C Private Sector	
BHEL Units	
27 Maheshwar (M.P.) 4x100 400.00 BHEL 25.06	25.06.07
Sub-total- BHEL 400	
OTHER UNITS	
Tidong-I, (H.P.)	
28 3X50 150.00 Alstom, India 28.02	28.02.11
Tangnu Romai- I, (H.P.)  2x22  44.00  Andritz Hydro, India  17.04	17.04.13
30 Phata Byung, (Uttarakhand) 76.00 76.00 Alstom, India 12.04	12.04.08
31 Bhasmey, (Sikkim) 2x25.5 51.00 Voith Hydro, India 14.04	14.04.10
32 Rangit-II, (Sikkim) 2x33 66.00 Gammon India Ltd. 24.03	24.03.12
33 Pinnapuram (Greenko) 4x240+2x120 1200.00 Andritz Hydro Pvt. Ltd., India 21.05.	21.05.202
34 Kutehr(HP) 3x80 240.00 Andritz Hydro Pvt. Ltd., India 13.02	13.02.20
Sub-total- Others 1827.00	
Sub-total (Private Sector): 2227.00	
Under Execution Total (Units Ordered): 13483.50	
Units not yet ordered	
A Central Sector	
35 Dibang Multipurpose Project (NHPC) 12x240 2880.00	
36 Sunni Dam (SJVN) 4x73+1x17 382.00	
37 Kwar (CVPPPL) 4x135 540.00	

	Sub-total (Central Sector):		3802.00	
В	State sector			
38	Chanju-III (HPPCL)	3x16	48.00	
39	Mankulam (KSEB)	2 x20	40.00	
40	Lakhwar Multipurpose Project (UJVNL)	3 x 100	300.00	
	Sub-total (State Sector):		388.00	
С	Private Sector			
41	Panan, Sikkim	4x75	300.00	
	Sub-total (Private Sector):		300.00	
Total: (Units not yet ordered)			4490.00	
	Total: Under execution		17973.50	

### Chapter 9.3

Part - A
Status of the ordering of various packages for Under Construction Hydro Electric Projects

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value ( Rs. Crs.)	Date of Contract (commence ment)/ Completion
Under Execution							
A Cen	tral Sector						
1	Pakal Dul CVPPL 03.10.2006/ 28.10.2014 4x250 = 1000MW	UT of J&K North Region	Civil works	Power House Package- Power House, Transformer Cavern, MIV cavern, Valve House, TRT, Pressure shaft, Surge Shaft and associated works.	M/s. Afcons-Jaiprakash Associates JV	1051.00	21.02.2018 20.12.2022
				Dam Pkg Diversion Tunnel works, Dam works, Spillways, and Part of HRT by DBM and associated works.	M/s Jaiprakash Associates	2853.00	21.06.2018 20.03.2023
			E&M Works	Letter of Award Issued: Supply, Erection & commissioning of E&M components.	M/s. Voith Hydro Limited	703.63	02.01.2019 01.11.2023
			H&M Works	Letter of Award Issued: Supply, Erection & commissioning of HM components.	M/s PES Engineers Pvt. Ltd	286.58	26.08.2019 25.06.2023
			HRT-TBM	Letter of Award Issued- HRT by TBM	M/s L&T Ltd.	2575.63	03.07.2020 02-01-2025
2	Parbati-II NHPC 12.10.1999/ 11.09.2002 4x200 = 800 MW	Himach al Pradesh , North Region	Civil works	<b>Lot-1:</b> Civil & HM works for Dam and Part HRT (0-3500m)	M/s Patel-SEW JV,	322.9	11.09.2002 13.08.2011 (revised)
				Lot-2: Civil & HM works of HRT (3500-24733m)	M/s Himachal JV	419.89	11.09.2002 10.09.2007
				Contract terminated in March-12 and Fresh awarded as under.			
				Lot-2A: Balance civil works of HRT by TBM	M/s Gammon-CMC JV, Mumbai	455.63	13.08.2013 27.01.2020 (revised)
				Lot-2B: Balance civil works of HRT by DBM and associated HM works	M/s Valecha Engg. Ltd, Mumbai	176.30	21.11.2013 24.01.2018 (revised)
				*contract has been terminated on 22.12.2018			
				Lot 2C : Execution of 1500 m Head Race Tunnel by DBM	M/s Gammon Engineers Contractors Pvt Limited	211.64	02.06.2020 01.03.2023
				Lot-3: Civil & HM works of Power House, Pressure Shaft, Surge Shaft & Part HRT (24733-31525)	M/s Gammon India Ltd.	603.69	13.09.2002 24.05.2016 (revised)
				Lot-4: Jiwa Nallah Works	M/s BJ_Techno-HAS	56.47	11.09.2002 10.09.2007
				Contract terminated and Fresh awarde	. ' /	•	•

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value ( Rs. Crs.)	Date of Contract (commence ment)/ Completion
	(iviv)			Lot-4A: Balance Civil & HM works of Jiwa Nallah and associated works *contract has been terminated on 25.05.2019	M/s Coastal Projects, Noida	78.34	22.06.2011 24.03.2015 (revised)
			E&M works	Generating Units,  EOT Crane  Main step up Transformers, Switch Yard and	M/s BHEL	354.44	<u>24.12.2002</u> 23.04.2007
				Electrical & Mechanical Auxiliaries	M/s BHEL	34.2	24.12.2002 23.04.2007 29.12.2006
				Design, Manufacture, Supply, Erection, Testing & commg.	M/s BHEL	391.11	02/2011
			H&M Works	Hydro-Mechanical Packages	M/s Patel-Sew JV	23.61	11.09.2002 13.08.2011 (revised)
3	Tehri PSS, THDC, 18.7.06 Nov-11 (Revised CCEA) 4x250=1000 MW	<u>Uttara.</u> <u>khand</u> <u>NR</u>	EPC/ Turnkey	i. Planning, Design and Engg. ii. Civil works iii. Supply of EM & HM (off shore) iv. Supply of E&M and HM (on shore) E&M and HM services	Consortium of M/S Alstom Hydro France and Hindustan Construction Company with M/s Alstom Hydro, France as lead partner	Total in 1843.49 E&M equip:- Euro 62.92 million + 474.43 Cr.	23.06.2011 27.07.11 26.01.2016 (Commence ment <u>Date</u> )
			Contract				U-1: 48 Mth. U-2: 50 Mth. U-3: 52 Mth. U-4: 54 mth. (from commenc.)
4	Tapovan Vishnugad	Uttara.		Construction of Barrage and De-silting chambers	M/s SSJV Projects Pvt. Ltd. and M/s ZVS,	26915	01/2007 07/2012
	NTPC	khand			Russia	1 10	
	11.08.2004/ Nov, 2006	<u>NR</u>		Contract terminated in November-10 at Construction of Barrage and De-silting	nd fresh award made in Ju M/s Rithwik Projects	1ly-12 457.57	07/2012
	4x130 = 520 MW			chambers (Balance Works)  Construction of HRT	Pvt. Ltd., Hyderabad.  M/s L&T Ltd. and M/s	455.921	03/2015
			Cii	Constitution of TIK1	Alpine Mayreder Bau GmbH	733.741	08/2012
			Civil works	HRT contract terminated on 09.01.2014 Construction of HRT(Balance Works)	4. HRT package re-awardo M/s HCC	ed on 09.03.20 634.03	03/2016 01/2019
				Power House & Penstock package	M/s Patel Engg. Pvt. Ltd.	221.28 Cr. + Euro 37.58m	05/2007 08/2012
			E&M works	Turbine generating units and associated auxiliaries	M/s BHEL	321.28 crs.	1/2008 12/12
			H&M works	Manufacturing, erection & Commissioning of various gates.	M/s Om Metal Infra project Ltd.	64.19 Cr. + €1.26m	10/07 09/12

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value ( Rs. Crs.)	Date of Contract (commence ment)/ Completion
			E&M Package		BHEL	2611.04	Dec, 12 June, 17
5	Vishnugad Pipalkoti, THDC	<u>Uttara</u>	Civil & HM works	EPC Contract	M/s HCC Ltd	1597.30	17.01.2014 16.07.2018
	21.08.2008 4x111= 444 MW		E&M Package	EPC Contract	BHEL	360.36	18.11.2014 17.11.2018
6	Teesta-VI NHPC 08.03.2019/ 07/.2007(FC	Sikkim NER	Civil works	Barrage, Desilting Basin, SFT, Intake part of HRT-I &HRT-II & other associated structure	M/s Jaiprakash Associate Limited	1710	31.03.2020
	) 4x125= 500MW		Civil works	Part of HRT-I &HRT-II , Surge Shaft, Power House ,TRT & other associated structure	M/s Patel Engineering Limited	1251	22.09.2021
			H&M works		M/s PES Engineers Private Limited	INR 100.76 & EURO 17.5 lakhs	27.10.2021
				E&M Package, EM-I	M/s GE Power India Ltd.	107.49	14.12.2020
				E&M Package, EM-II	M/s BHEL	150.10	04.09.2020
				E&M Package, EM-III	M/s Technico India Pvt Ltd	3.98	22.09.2020
			E&M works	E&M Package, EM-IV	M/s Jakson Ltd	3.07	1.10.2021
				E&M Package, EM-V	M/s SHES Air and Automation	5.63	06.08.2021
				E&M Package, EM-VI	M/s Avaids Technovators Pvt. Ltd.,	3.89	16.04.21
				E&M Package, EM-VII	M/s PGCIL	55.57	21.12.2021
				E&M Package, EM-VIII	M/s B. C. Technomation	6.23	28.08.2021
7	Subansiri Lower NHPC 07.06.2001/0	Ar.Pr/ Assam NER		Dam/Barrage	M/s BGS – SGS - Soma JV, Hyderabad	1098.32	19.12.2003 12/2009
	9.09.03 8x250= 2000 MW		Civil works	Power House & Tail Race civil works	M/s L & T LTD, Chennai	921.59	19.12.2003 12/2009 (Contract Foreclosed on 28.04.2015)

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value ( Rs. Crs.)	Date of Contract (commence ment)/ Completion
				Surge Tunnel Works	M/s L & T LTD, Chennai	422.50	14.05.2009 11/2012 (Contract Foreclosed on 28.04.2015)
				Balance civil work of Powerhouse complex from HRT to Tail Race Channel	M/s Patel Engineering Ltd, Mumbai	1564.41	01.09.2021 12/2023
				Supply of CIF/CIP: Supply of all off shore equipments and material including general and specified spares.	Consortium of M/s Alstom Power Hydraulique, France And M/s Alstom Project India Ltd.	Euro 76.80 million + US\$ 6,779,760.	11.02.2005 08/2010
			E&M works	Ex-works supply of all equipment and material including general and specified spares of Indian origin.	Consortium of M/s Alstom Power Hydraulique, France and M/s Alstom Project India Ltd.	€ 23.21 million + US\$ 14,56 million + 727.97 crs	11.02.2005 08/2010
				Local transportation including port clearance and port charges and inland insurance and installation services.	M/s Alstom Project India Ltd.	1,23,74,37,48 6. 00	11.02.2005 08/2010
			H&M works	Supply, erection & commng. of gates	M/s Texmaco Ltd.	283.48 Cr. + Euro 2.22 M	19.06.2006 04/2010
8	Ramam-III NTPC Ltd. 3x40= 120 MW	<u>W.B.</u> <u>E.R.</u>	Civil works	Approach road to right bank of barrage to access various project component, Barrage construction, Under ground de- silting chamber with SFT and 5.1 km HRT	M/s. Simplex-Apex-JV (The contract has been terminated on 09.02.2024)	360.83	10.09.14 09/2019
			& HM works	Access from bridge on Rammam river to various proj. <b>components, 3.1 km</b> HRT, Surface Power House, 740 m TRC and 132 KV Switchyard.	M/s. SEW Infrastructure Ltd.	265.39	12.12.14 12/2019
			E&M works	Design, Engineering, Manufacturing, Supply, Insurance, Erection, Testing & Commissioning works for EM works EPC contract package.	M/s. BHEL	224.67	19.02.2015 11/2018
9	Ratle GVK Ratle HEP Pvt. Ltd. (GRHEPPL) 19-12-2012 4x205+1x30 = 850 MW	<u>J&amp;K</u> <u>NR</u>	Infrastructures	ution of 850MW Ratle Hydroelectric pro Limited on 18.01.2022 on EPC basis for 52		ss. 3485.14 cror	es.
10	Kiru CVPPL 13.06.2016 4x156=624 MW	J&K NR	Civil Works	Civil and HM works of DT, concrete gravity Dam, Intake, Pressure shaft, TRT and underground Power House.	M/s. Patel Engineering Ltd.	2240.27	24.02.2020 23.04.2024
			HM Works	Providing all service, Model testing, transportation, testing, Commissioning of Radial Gates, Vertical Gate, Gantry Cranes, Stoplogs, Steel liner for Pressure Shaft and Trash racks.	M/s PES Engineers Pvt. Ltd.	202.10	24.02.2020 23.01.2024

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value ( Rs. Crs.)	Date of Contract (commence ment)/ Completion
			E & M works	Design, Manufacture, Supply Erection, Testing & commissioning of TG, 400 KV GIS, 400 KV outdoor pothead yard equipment, Associated Accessories and Auxiliaries,	M/s Andritz Hydro Pvt. Ltd.	552.52	<u>24.02.2020</u> <u>23.07.2024</u>
11.	Rangit-IV Jal Power Corp. Ltd. 06.07.2007/2 3.10.2007(F C) 3x40 MW= 120	<u>Sikkim</u> <u>NER</u>	Civil works	Construction of Balance Civil works package: Diversion Channel, Coffer Dams, Dam, Spillway & Stilling Basin, Intake structure, Desilting Chambers, SFT, HRT, Surge Shaft, Pressure Shaft, Surface power house, TRC & other associated structures etc.	M/s Rithwik-HIPL Joint Venture	452.11	27.08.2021
			H&M works	Hydro-mechanical Works package of Rangit Stage-IV HE Project,	M/s PES Engineers Private Limited	100.40	28.06.2021
			E&M works	Electromechanical Works Package EM-2 for Design, Supply, Erection, Testing 7 Commissioning of Balance of Plant (BOP) items	M/s Andritz HydroPrivate Limited	80.12	08.07.202 1
12.	Luhri Stage- 1 SJVN Ltd. 01.05.2018 2x80+2x25=	Himach al Pradesh	Civil and HM works	Design & engineering services, Civil and HM works of project.	M/s Luhri Hydro Power Consortium (A consortium of Patel Engineering and HES Infra Pvt. Ltd.)	976.50	24.11.2020/ 23.11.2025
	210 MW		E&M works	Design, engineering, manufacture, transportation, erection and commissioning of all EM components of project.	M/s. Voith Hydro Pvt. Ltd.	420.28	16.07.2021/ 16.05.2025
13	Dhaulasidh Hydro Electric Project SJVN Ltd	Himach al Pradesh NR	Civil and HM works	Design & engineering services, Civil and HM works of project.	M/s Rithwik Projects Pvt Ltd	526.92	06.05.2021/ 05.05.2025
	(2x33 MW = 66MW)		E&M works	Design, engineering, manufacture, transportation, erection and commissioning of all EM components of project.	Voith Hydro Pvt. Ltd.	136.64	19.01.2022/ 18.01.2025
14	<u>Kwar</u> (CVPPPL)	J&K	Civil and HM works	Civil Works of DT, Dam, Intake Pressure, Shafts, Power House, TRT.	M/s Patel Engineering Limited	2461	11.05.2022/
			E&M works				10.05.2026
15	Dibang Multipurpo se Project (NHPC)	Arunac hal Pradesh	Infrastructur e works/ Civil Works	Construction of Access Roads to Project Dam Site, Left Bank Road Network, Dibang Bridges, Dam Site Right Bank Road Network and Temporary Haulage Road to Pathar Camp From ADC Morh Including All Civil and HM Works Of Diversion Tunnel'	M/s L&T	1622	27.02.2023 / 05.03.2026

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value ( Rs. Crs.)	Date of Contract (commence ment)/ Completion
16	Sunni Dam (SJVN) 4.1.2023 4x73+1x73+	Himach al Pradesh	Civil and HM works	Design & engineering services, Civil and HM works of project.	M/s Rithwik Projects Pvt Ltd		14.1.2023
	1x17=382 MW		E&M works	Yet to be awarded			
В	State Sector						
17	Parnai JKSPDC 21.10.2013 3x12.5=	NR <u>J&amp;K</u>	Civil works	EPC contract	M/s. Patel Engineering Ltd. & M/s. Alstom India.		25.10.2013
	37.5 MW		E&M works	T.G. Set	M/S.Andritz Hydro, India		
			E&M works	T.G. Set	M/s. GE Power India Pvt. Ltd.		
18	Uhl-III, BVPC Ltd. 19.09.02 / (TEC -2x50 MW) 3x33.3 =100	H.P. NR		Neri Intake works & power channel	M/s SSJVPP Ltd. 12 <sup>th</sup> floor S.N.Tower 25/2 M.G.Road, Banglore Fresh Package awarded on 25.10.08 to: Continental Corp Project Ltd.	8.68	18.04.05 15.8.07 Re-awarded on 25.10.08
			Civil works & HM Works	Head Race Tunnel (HRT)	M/s SSJVPP Ltd. 12 <sup>th</sup> floor S.N.Tower 25/2 M.G.Road, Banglore 560001 Package reawarded to: Continental Corp Project Ltd Reawarded to M/s Abir Infrastructure Pvt. Ltd.,	69.58	02.04.03 30.04.07
				Rana Intake Works & Power channel	Gurgaon.  M/sTRG Industries Pvt Ltd E- 461 Greater Kailash –II New Delhi	17.53	26.07.05 26.10.07
				Penstock fabrication, erection	M/s PES.Engineers Pvt. Ltd. Hyderabad-500016	57.26	27.05.05 27.11.07
				Power House	M/s Pilot Engg., Ludhiana	9.87	19.6.2007 12/2009
			E&M works	Generating Equipment & Associated Aux, Transformers	M/s BHEL	117.36	15.02. 07 15.04.10
19	Shongtong Karcham H.P. Power Corpn. Ltd. Clearance: 16.08.2012/ 3x150= 450 MW	H.P. 2017- 18 2017- 18	Civil And H&M works	EPC Contract Package for Civil & HM works	M/s Patel Engineering Ltd.	103.24	04.08.2012 03.08.2017
20	Shahpurkand i, Irrigation	Punjab NR	Civil works & HM	Main Dam alongwith Two head regulators	SOMA-BUREYA Joint Venture	687.51	11.02.2013 Oct- 2016
	Deptt/PSPC L		works	Hydel Channel	M/s Gurinder Singh Contractor	90.11	26.02.2013 Oct- 2015
	04.05.2011		E&M works	EPC Contract	BHEL		28.02.14

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value ( Rs. Crs.)	Date of Contract (commence ment)/ Completion
	3x33+3x33+ 1x8= 206 MW		E&M works	Design, manufacture, testing & commissioning of TG unit and auxiliaries	M/s IVRCL Ltd. Pune Turbine- Litostroj Slovania Generator- Koncar, Croatia	Euro 4.03 Crs + 177.99 Crs	16.12.2010 15.12.2014
21	Polavaram (PPA) 21.07.10/	Andhra Pradesh		Investigation and L.P schedules etc., (Balance) &	M/s. Trans stroy- JSCECUES (JV), Hyderabad	4054.00	02.03.2013 01.03.2018
	25.02.09 12x80 = 960MW	<u>S.R.</u>	Civil works & HM works & E&M works	EPC contract on TURNKEY basis.	M/s. Navayuga Engineering Company Contract terminated on 14.08.2019 & re-awarded to M/s Megha Engineering and Infrastructure Limited	3220.28 Crs	20.12.2017
					on 01.11.2019	2810.88 Cr.	01.11.2019
22	Pallivasal KSEB/ Not Req./31.1.20 07 2x30=60	<u>Kerala</u> <u>SR</u>	Civil, H&M works and E&M works	The work was awarded to M/s ES consortium as a single package and an awas executed on 31.01.2007. The contra is 48 months i.e. 01.3.2011.  E&M: Dongfang Electric Corporation,	agreement in this regard actual date of completion	242.96 Crs + US\$57 million	31.01.2007 01.03.2011
23	Thottiyar KSEB	<u>Kerala</u> <u>SR</u>	Civil works	Dam, Water Conductor System, power House	M/s Coastal Projects Private Ltd-	44.23	22.12.2008 19.05.2012
	1x30 + 1x10= 40	SIC	н&м	Gates, erection, commissioning	Chongqing Joint Venture, Hyderabad	24.09	22.12.2008 19.05.2012
	MW		works E&M works	Planning, Engineering, Manufacture, Supply, Erection, testing & commissioning	E&M: Chongqing, China	75.68	22.12.2008 19.05.2012
24	Kundah Pumped Storage Phase -4 x125=125	Tamil Nadu	Civil &	Package-I: Power House HM works on the Downstream side of P/House (Phase-I).	M/s. Patel Engg., Mumbai - Package-I	346.48	15.02.18 15.02.22
	MW		HM Works	Package-II: Head Race Tunnel, Head Surge Shaft, Pressure Shafts, HM works on the Upstream side of P/House (Phase-I).	Consortium	321.34	15.02.18 15.11.21
	Phase-I, II &III		E & M Works	Phase –I, Package-III: 1x125 MW  Phase-II: 2x125 MW. Phase-III: 1x125 MW.  (Complete design, Engineering,	M/s Megha Engineering Infrastructure Ltd,Hydrabad.	604.62 (Phase-I, Package- III)	28.11.2019 28.05.2023 28.11.2019 28.05.2023
				Procurement, Manufacturing assembly,Inspection,Testing,Transporting ,Supply of complete reversible pump turbine, Generating M/c, Gen. Tx. and common accessories.including C&P system etc.,as specified at site erection ,testing and commissioning of unit)		756.54 (Phase-II) 401.85 (Phase-III)	28.11.2019 28.05.2023

SI. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value ( Rs. Crs.)	Date of Contract (commence ment)/ Completion
25	Lower Kopli APGCL 2x55+2x2.5 +1x5= 120 MW	<u>Assam</u> NER	Civil & HM Works	Civil, Road & HM works awarded on 21.08.2020.	M/s L&T	1163.04	<u>June 2024</u>
			EM Works	E&M work awarded on 09.09.2021.	M/s Andritz Hydro Pvt. Ltd.	306.72	<u>June 2024</u>
26	Chanju-III (HPPCL)	H.P. NR	Civil Works	Civil works {Package-I and Package –II} awarded on 07.10.2022	(M/s. MFB-ACNC (JV)	350.52	07.10.2022
27	Mankulam (KSEB)	<u>Kerala</u> SR	Civil & HM works	Construction of Dams, Power Tunnel, Surge Shaft, Valve house, Pressure Shaft, Power House, Switch Yard, Access Roads, Bridge and Hydro Mechanical Works.	M/s. PES Engineers Private Limited - M/s KSR Infracon Private Limited, Joint Venture (PES-KSR JV) ,1st Floor,Pancom Chambers,6-3-1096 /IIA, Somajiguda, Raj Bhavan Road, Hyderabad- 500082, Telanoana	250.22	21.05.2022/ 14.05.2026
28	Lakhwar Multipurpos e Project (UJVNL)	<u>Uttarak</u> <u>hand</u> <u>NR</u>	Civil Works	Civil works awarded on 01.02.2023	M/s L&T	3241.08	01.02.2023
29	Lower Sileru Extension (APGENCO	Andhra Pradesh	Civil & HM Works	Civil works awarded on 13.04.2022	M/s Shirdi Sai Electricals Ltd. & M/s. PES Engineers Pvt. Ltd.	131.61	13.04.2024
			E&M Works	E&M works awarded on 13.04.2022	M/s Shirdi Sai Electricals Ltd. & M/s. PES Engineers Pvt. Ltd.	283.77	13.04.2024
С	Private Sector	_					
30	Tidong-I M/s NSL Tidong Power Gen.	HP NR		Construction of River diversion, barrage, intake, Desilting basins, storage reservoir & HRT (RD 0 m -905 m)	M/s SCL Infratech Ltd. Hyderabad	127.996	07.11.200 <u>8</u> 06.11.201 1
	Ltd. $2x50 = 100$			Construction of HRT (RD 905 m-RD 5537 m)	M/s SCL Infratech Ltd. Hyderabad	83.327	7.11.2008 09/2014
	MW		Civil works	Construction of HRT (RD 5537 m -RD 8537 m)	M/s Himalaya Construction (P) Ltd.	31	07.07.201 1 06.07.201 5
				Construction of Surge Shaft, Pressure Shaft, Power House and Tail Race Channel	M/s Himalaya Construction (P) Ltd.	40	07.07.201 2 06.06.201 5

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value ( Rs. Crs.)	Date of Contract (commence ment)/ Completion
	(17177)		E&M works	Supply, Installation, testing & commissioning of TG sets	M/s Alstom Projects, India	84	28.02.201 1 27.05.201
			E&M works	Supply, installation, T&C of TG set, Switchyard equipment & associated auxiliaries	M/s Andritz Hydro, India	56	3 17.04.201 3 16.07.201 5
			H&M works	Design, Engineering, Manufacture, Farication & Erectio,n of all hydro- mechamical equipment	M/s CIMMCO	34	12.04.200 <u>8</u> 08/2012
			E&M works	Manufacturing., Supply, erection & commng. of TG units	M/s Alstom Project, India	84	12.04.200 <u>8</u> 08.2012
			E&M works	Manuf., Supply, erection & commng. of TG units	M/s BHEL	470.5 Crs. + USD \$ 11.74 M 18.05.200	25.06.200 7 10/2009
			H&M works	N.A.			
			E&M works	Manufacturing., Supply, erection & commng. of TG units	M/s Voith Hydro, India	93	14.04.2010 10/2012
			E&M works		M/s. Gammon India Ltd.		24.03.2012
			E&M works	Manufacturing., Supply, erection & commng. of TG units	Under Award		
31	Kutehr M/s JSW Energy (Kutehr) Ltd. 3x80 = 240 MW 31.08.2010	<u>HP</u> <u>NR</u>	Civil works	Lot-1 Civil works for River diversion, Barrage,Power intake & Part of HRT. Lot-2 Civil works for balance HRT, Surge Shaft, Pr. Shaft, Steel liner, under ground power house, TRT, and Pothead yard. Lot-3 Complete HM works	-M/s Angelique-PCC Constorium. -M/s MF Bumi Geotech private ltd.	567.00 507.40	20.10.2019 19.06.2023 25.11.2019 24.05.2023
	2.100.2010			Lot-1D Design, fabrication ,supply and erection of steel liner and pen stock.	-M/s P.E.S. Engineers Pvt Ltd. -M/s Greyhound Engineers India Private Ltd.	60.00 18.00	06.01.2020 05.05.2023 21.07.2020 20.07.2023
			E&M works	Electro Mechanical works.	M/s Andritz Hydro Pvt. Ltd.	220	29.07.2020 28.07.2023
			Design	Project Design and Engineering	M/s AF Consult India Private Ltd, Tower 1, Steller IT Park, Sector 62, NOIDA- 201 301	11.5	11.04.2019 10.05.2024
			Colony	Construction of Jura Colony	M/s Swastik Prefab Private Limited, Sector - 16, NOIDA-201 031	16	06.02.2020 30.11.2022
32	Pinnapura m (Greenko	A.P.	Civil works & HM	Package -I Civil and Hydro Mechanical works Package -II Balance of Plant (BOP) works	M/s Megha Engineering		30.09.2020

SI. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value ( Rs. Crs.)	Date of Contract (commence ment)/ Completion
	AP01 IREP Private Ltd)		E&M works	Package -III Electro-mechanical works	M/s Andritz Hydro Pvt. Ltd.		21.05.2020

 $\label{eq:Part-B} \textbf{Part-B}$  Status of the ordering of various packages for construction-held-up Hydro Electric Projects

SI. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value ( Rs. Crs.)	Date of Contract (commencem ent)/ Completion
A.	Central Sector						
1	Lata Tapovan, NTPC Aug-2012 3x57= 171 MW	Uttara khand NR	Civil & HM works	EPC Contract	M/s L&T	780.54	17.08.2012 16.08.2017
			E&M Package E&M		BHEL	2611.04	Dec, 12 June, 17
В	State Sector		works				
2	Lower Kalnai JKSPDC 16.08.2013	NR <u>J&amp;K</u>	Civil works	EPC contract	M/s Coastal Projects Ltd.		12.09.2013
	2x24= 48 MW		E&M works	T.G. Set	M/s. GE Power India Pvt. Ltd.		
3	Koyna Left Bank PSS WRD, Govt. of Mah. 20.02.2004 2x40 = 80 MW	<u>Maha.</u> <u>WR</u>	Civil and H&M works	Barrage, Intake tunnel, Twin lake tap, Ventilation tunnel, Power house, Intake structure ,HRT, Pressure shaft, tail surge shaft, pen stoke, TRT, Bus duct tunnel, Lower intake structure	M/s B.T. Patil-Malaxmi (JV), Pune  M/s Patel Engg. Ltd. Mumbai	131.91 Crs. 118.86 Crs.	20.06.2007 30.06.2013 03.10.2007 30.06.2016
			E&M works	Design, manufacture, testing & commissioning of TG unit and auxiliaries	M/s IVRCL Ltd. Pune Turbine- Litostroj Slovania Generator- Koncar, Croatia	Euro 4.03 Crs + 177.99 Crs	16.12.2010 15.12.2014
			EM Works	E&M work awarded on 09.09.2021.	M/s Andritz Hydro Pvt. Ltd.	306.72	June 2024
С	Private Sector						

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value ( Rs. Crs.)	Date of Contract (commencem ent)/ Completion
4	Tangnu Romai- I M/s Tangu Romai Power generation 2x22= 44 MW	HP NR	Civil works	Construction of Diversion Barrage, Intake, desilting, HRT, Surge Shaft, Penstok, Power House & Tail Race Channel	M/s Sai Urja Hydel Projects (P) Ltd., Shimla	164.7	14.06.2010 06/2014
	30.11.2007 HPSEB		E&M works	Supply, installation, T&C of TG set, Switchyard equipment & associated auxiliaries	M/s Andritz Hydro, India	56	17.04.2013 16.07.2015
5	Phata Byung M/s Lanco 06.10.2008	<u>Uttarakha</u> <u>nd</u> <u>NR</u>	Civil works	Dam, water conductor System, power House	Lanco Infratech Ltd.	206	12.04.2008 07/2012
	2x38 MW = 76 MW		H&M works	Design, Engineering, Manufacture, Farication & Erectio,n of all hydro- mechamical equipment	M/s CIMMCO	34	12.04.2008 08/2012
			E&M works	Manufacturing., Supply, erection & commng. of TG units	M/s Alstom Project, India	84	12.04.2008 08.2012
6	Maheshwar, SMHPCL 12 96/ 29.9.2006 (FC)	<u>M. P.</u> <u>WR</u>	Civil and HM works	All civil works like dam, Power Dam, HRC, Penstock PH etc.	M/s SEW Construction –Prasad and Company Ltd.	275.0 Crs. 22.02.97	22.02.1997 03/2005
	10x40= 400MW		E&M works	Manuf., Supply, erection & commng. of TG units	M/s BHEL	470.5 Crs. + USD \$ 11.74 M 18.05.2001	25.06.2007 10/2009
7	Bhasmey Gati Infrastructure 2x25.5 = 51 MW	<u>Sikkim</u> <u>NER</u>	Civil works	Dam, Tunnels , Power House, Surge Shaft, Pressure Shaft, Intake	M/s Simplex Infrastructure Ltd.	160	12.04.2010 11/2012
			H&M works	N.A.			
			E&M works	Manufacturing., Supply, erection & commng. of TG units	M/s Voith Hydro, India	93	14.04.2010 10/2012
8	Rangit-II Sikkim Hydro Power Limited 2x33= 66 MW	<u>Sikkim</u> <u>NER</u>	Civil &HM works	EPC Contract	M/s Coastal Project Limited	220.35	13.12.2011 23.10.2013
			E&M works		M/s. Gammon India Ltd.		24.03.2012
9	Panan Himagiri Hydro Energy Pvt. Ltd. 07.03.2011 4x75= 300 MW	<u>Sikkim</u> <u>NER</u>	Civil works	Coffer Dam, Diversion Tunnel, Dam, Desilting Basin, Power House, Surge Shaft, Pressure Shaft, Intake etc.	M/s Essar Projects (India) Ltd	392.40 (Excl. cost of cement, Steel, explosives)	22.02.2014 21.02.2018 (48 months)
			E&M works	Manufacturing., Supply, erection & commng. of TG units	Under Award		

## <u>CHAPTER – 10</u>

## <u>Part A –</u> <u>Status of financial closure of Under Execution Private Sector H. E. Projects</u>

Sl.	Name of	Implementing	Financial Closure Status	Remarks/
No.	Project, State, Capacity, Date of TEC	Agency		Constraints
	<b>Under Executio</b>	n		
1.*	Teesta-VI, Sikkim 4x125 MW 27.12.2006	M/s Lanco Energy Pvt. Ltd.	Financial closure achieved in July, 07.	
2.*	Rangit-IV, Sikkim 3x40 MW 06.07.2007	M/s Jal Power corporation Ltd.	Financial closure achieved on 25.01.2010.	
3.	Tidong-I ,H.P. 150 MW 23.07.2007	M/s NSL Tidong.	Financial closure achieved on 25.03.2010.	
4*	Ratle, J&K 4x205+1x30= 850 MW	M/s GVK Ratle HEP Pvt. Ltd. (GRHEPPL)	Financial closure achieved.	
5.	Kutehr,H.P. 3x80=240 MW	M/s JSW Energy (Kutehr) Ltd	Financial closure achieved on 14.01.2021	
6.	Pinnapuram, Andhra pradesh 4x240 + 2x120 = 1200 MW	Greenko AP01 IREP Private Limited)	Financial Closure for 1200 MW: 06.04.2022 Financial Closure for total capacity of 1680 MW: 13.12.2023	

<sup>\*</sup>Now these are CPUS's Projects

## <u>Part B –</u> <u>Status of financial closure of Held up Private Sector H. E. Projects</u>

Sl. No.	Name of Project, State, Capacity, Date of TEC	Implementing Agency	Financial Closure Status	Remarks/ Constraints
	<b>Under Executio</b>	n		
1	Maheshwar,	Shree Maheshwar	Financial closure achieved on 29.9.2006.	
	M.P., 10x40	Hydel Power		
	MW,	Corporation Ltd.		
	30.12.96	_		
2.	Tangu	Tangu Romai	Financial closure achieved on	
	Romai,H.P.	Power Gen. Pvt.	22.01.2010.	
	2x22 MW	Ltd.		

Sl. No.	Name of Project, State, Capacity, Date of TEC	Implementing Agency	Financial Closure Status	Remarks/ Constraints
	30.11.2007			
3.	Phata Byung Uttarakhand 2x38 MW 06.10.2008	M/s Lanco	Financial closure achieved on 25.07.2009.	
4.	Bhasmey, Sikkim 2x25.5= 51 MW Dec, 2008	M/s Gati Infrastructure	Financial closure achieved on 25.03.2010	
5.	Rangit Stage- II Sikkim 2x33= 66 MW 10.02.2010	M/s Sikkim Hydro Power Ventures Limited	Financial closure achieved on 15 <sup>th</sup> Jan, 2014, 31 <sup>st</sup> March 2015 (Revised).	
6.	Panan, Sikkim 4x75= 300 MW 07.03.2011	Himagiri Hydro Energy Pvt. Ltd.	Financial closure with total debt of Rs. 1516.42 is tied up with PFC ((808.76 Crores), PTC (Rs. 120 Crores) & REC (Rs 587.67 Crores).	

## Chapter 11. DETAILS OF TIME/COST OVERRUN OF UNDER DEVELOPMENT HYDRO ELECTRIC PROJECTS (ABOVE 25 MW) – STATE-WISE

**Part A – Active Under Construction Projects** 

Sl. No	Project Name/(I.C.)/ Executing Agency	Unit No.	Cap. (MW)	Original Comm. Sched.	Latest/ Anticipated Comm. Sched.	Time over run (months	Org. Cost (Rs. in Crores) (Price Level)	Latest/Ant. Cost (Rs. in Crores) (Price Level)	Cost over run (Rs. in Crores) (%)	Major reasons for time over run
1	2	4	5	6	7	8	9	10	11	12
	Andhra Pradesh									
1	Polavaram (12x80 = 960 MW) APGENCO / Irr. Deptt., A.P.	1 2 3 4 5 6 7 8 9 10 11	80 80 80 80 80 80 80 80 80 80	2016-17 2016-17 2016-17 2016-17 2016-17 2016-17 2017-18 2017-18 2017-18 2017-18 2017-18 (Mar'18)	2025-26 2025-26 2025-26 2025-26 2025-26 2025-26 2025-26 2025-26 2025-26 2025-26 2025-26 (March,26)	96	3013.68 (2010-11 PL) (Power Component)	5338.95 (2016-17 PL) (Power Component)	2325.27 (77.15)	Works stalled since 19.07.2019 till 30.03.2021 as APGENCO asked contractor Navayuga Engineering Company Ltd. (NECL) to stop all works and termination of contract issued on 14.08.2019. The writ petition filed by NECL was disposed by Hon'ble High Court against NECL on 14.12.2020. Final Contract concluded with new contractor M/s MEIL for execution of PHEP works on 30.03.2021
2	Pinnapuram (4x240+2x120 MW) M/s Greenko	1 2 3 4 5 6	240 240 240 240 240 120 120	2024-25 2024-25 2024-25 2024-25 2024-25 2024-25 (Mar'25)	2024-25 2024-25 2024-25 2024-25 2024-25 2024-25 (Dec'24)	Nil	6465.22 (Feb'2021 PL)	6465.22 (Feb'2021 PL)	Nil	Not applicable/ No time overrun
3	Lower Sileru Extension (2x115MW)(APGENCO)	1 2	115 115	2025-26 2025-26 (Mar'26)	2025-26 2025-26 (Mar'26)	NIL	571 (2020-21 PL)	571 (2020-21 PL)	NIL;	The project is in initial stage of construction.
	Arunachal Pradesh									
4	Subansiri Lower (8x250 = 2000 MW) NHPC	1 2 3 4 5 6 7 8	250 250 250 250 250 250 250 250 250	2009-11 2009-11 2009-11 2009-11 2009-11 2009-11 2009-11 (Sep'10)	2026-27 2026-27 2026-27 2026-27 2026-27 2026-27 2026-27 2026-27 (May'26)	188	6285.33 (12/02)	21247.54 (Completion Cost)	14962.21 (238)	<ul> <li>Delay in transfer of forest land.</li> <li>Disruption of works by locals in Ar. Pradesh side.</li> <li>Slope failure in Power House in Jan, 2008.</li> <li>All works except safety works were stalled from December, 2011 to October, 2019 due to agitation launched by activists in Assam against construction of Project. Work restarted w.e.f. 15.10.2019.</li> </ul>

Sl. No	Project Name/(I.C.)/ Executing Agency	Unit No.	Cap. (MW)	Original Comm. Sched.	Latest/ Anticipated Comm. Sched.	Time over run (months	Org. Cost (Rs. in Crores) (Price Level)	Latest/Ant. Cost (Rs. in Crores) (Price Level)	Cost over run (Rs. in Crores) (%)	Major reasons for time over run
1	2	4	5	6	7	8	9	10	11	12
										> DT-2 Inlet Area collapse and flooding of PH in September 2022.
5	Dibang Multipurpose Project (12x240 = 2880 MW) NHPC	1 2 3 4 5 6 7 8 9 10 11 12	240 240 240 240 240 240 240 240 240 240	2031-32 2031-32 2031-32 2031-32 2031-32 2031-32 2031-32 2031-32 2031-32 2031-32 (Feb'32)	2031-32 2031-32 2031-32 2031-32 2031-32 2031-32 2031-32 2031-32 2031-32 2031-32 (Feb'32	NIL	31876.39 (05/21)	31876.39 (05/21)	NIL	The project is in initial stage of construction.
	Assam									
6	Lower Kopili (2x55+2x2.5+1x5 =120MW)	1 2 3 4 5	55 55 5 2.5 2.5	2024-25 2024-25 2024-25 2024-25 2024-25 (Jun'24)	2024-25 2024-25 2024-25 2024-25 2024-25 (March'25)	9	1115.91 (01/15)	1795 (2021)	679.09 (60.86)	The project is in initial stage of construction.
	Himachal Pradesh									
7	Parbati - II (4x200 = 800 MW) NHPC	1 2 3 4	200 200 200 200 200	2009-10 2009-10 2009-10 2009-10 (Sept'09)	2024-25 2024-25 2024-25 2024-25 (Dect,24)	183	3919.59 (12/01)	11063.49 (07/22)	7143.9 (182.26)	<ul> <li>Delay in revised forest clearance.</li> <li>TBM suffered extensive damage due to heavy ingress of water and slush in TBM face in Nov, 2006. Due to poor geology.</li> <li>Flash flood in 2004,2005,2010 and 2011.</li> <li>Contractual issues.</li> <li>Cash flow issues with civil contractors.</li> </ul>
8	Uhl-III (3x33.33 = 100 MW)	1 2	33.33 33.33	2006-07 2006-07	2024-25 2024-25	213	431.56 (09/02)	2948.94 (03/2023)	2517.38 (583.32)	<ul> <li>Delay in transfer of forest land.</li> <li>Delay in acquisition of private land</li> </ul>

Sl. No	Project Name/(I.C.)/ Executing Agency	Unit No.	Cap. (MW)	Original Comm. Sched.	Latest/ Anticipated Comm. Sched.	Time over run (months	Org. Cost (Rs. in Crores) (Price Level)	Latest/Ant. Cost (Rs. in Crores) (Price Level)	Cost over run (Rs. in Crores) (%)	Major reasons for time over run
1	2	4	5	6	7	8	9	10	11	12
	BVPCL	3	33.33	2006-07 (Mar'07)	2024-25 (Dec,24)					<ul> <li>Delay in award of works.</li> <li>Delay in transfer of quarry sites.</li> <li>Contract for construction of HRT rescinded twice i.e. during April, 2008 &amp; July, 2010 due to slow progress and nonperformance by the contractor.</li> <li>Poor geology in HRT.</li> <li>Leakage in Penstock in July,2018 and Rupture in May,2020</li> </ul>
9	Shongtom Karcham (3x150 = 450 MW) HPPCL	1 2 3	150 150 150	2016-17 2016-17 2016-17 (Mar'17)	2026-27 2026-27 2026-27 (Nov,26)	116	2807.83 (07/11)	3708.51	900.68 (32.07)	<ul> <li>Disruption of works by local people.</li> <li>Barrage</li> <li>Silt Flushing Tunnel.</li> </ul>
10	Tidong-I 2x50 =100 MW NSL Tidong (w.e.f. 04.09.2018 Statkraft India Pvt. Ltd. Has acquired the 100% equity in the project)	1 2 3	50 50 50	2021-22 2021-22 (Oct'21) New Developer	2024-25 2024-25 (Jun'25)	44	543.15 (01/2007)	1850.00 (06/2018)	1306.85 (240.6)	<ul> <li>Delay in NOC by Projects affected Panchayats.</li> <li>Suspension of works by Govt. for one year.</li> <li>Funds constraints with the developer</li> <li>Trans.line forest clearance, stuck with Supreme court .</li> <li>Delay in finalizing the power evacuation arrangement.</li> </ul>
11	Kutehr 3x80=240 MW JSW Energy (Kutehr) Ltd	1 2 3	80 80 80	2024-25 2024-25 2024-25 (Nov'24)	2025-26 2025-26 2025-26 (Nov'25)	12	1798.13 (09/2011)	2879 (03/2019)	1080.87 (60.11)	Slow mobilization due to Covid-19 Lockdown.
12	Luhri Hydro Electric Project Stage-I (2X 80+2X25 MW = 210 MW)	1 2 3 4	80 80 25 25	2025-26 2025-26 2025-26 (Jan'26)	2025-26 2025-26 2025-26 (Jan'26)	NIL	1810.56 (05/20)	1810.56 (05/20)	NIL	➤ Work started recently ➤ Rs. 1810.56 Crore which includes project cost of Rs. 1744.37 Crores (05/2020 PL) and Rs. 66.19 Crore for enabling infrastructure (to be availed as budgetary support from GoI)
13	Dhaulasidh (SJVN) 2x 33=66MW Hamirpur/ Kangra	1 2	33 33	2025-26 2025-26 (Nov'25)	2025-26 2025-26 (Nov'25)	NIL	687.97 (05/2020)	687.97 (05/2020)	NIL	Work started recently  (Rs. 687.97 Crores which includes project cost of Rs. 666.32 Crores (05/2020 PL) and Rs. 21.65 Crores for enabling infrastructure (to be availed as budgetary support from GoI)

Sl. No	Project Name/(I.C.)/ Executing Agency	Unit No.	Cap. (MW)	Original Comm. Sched.	Latest/ Anticipated Comm. Sched.	Time over run (months	Org. Cost (Rs. in Crores) (Price Level)	Latest/Ant. Cost (Rs. in Crores) (Price Level)	Cost over run (Rs. in Crores) (%)	Major reasons for time over run
1	2	4	5	6	7	8	9	10	11	12
14	Sunni Dam (SJVN) 4x 73+1x73+1x17=382 MW	1 2 3 4 5	73 73 73 73 73 73	2027-28 2027-28 2027-28 2027-28 2027-28 2027-28 (Mar'28)	2028-29 2028-29 2028-29 2028-29 2028-29 2028-29 (Apr'28)	1	2614.51 (Mar <sup>2</sup> 1)	2614.51 (Mar'21)	Nil	The project is in initial stage of construction.
15	Chanju-III (3x16 = 48 MW) HPPCL	1 2 3	16 16 16	2027-28 2027-28 2027-28 (Jul'27)	2027-28 2027-28 2027-28 (Jul'27)	Nil	418.57 (01/15)	789.49 (04/22)	370.92 (88.16)	The project is in initial stage of construction.
16	Pakal Dul (4x250= 1000 MW) CVPPL	1 2 3 4	250 250 250 250 250	2020-21 2020-21 2020-21 2020-21 (Apr'20)	2026-27 2026-27 2026-27 2026-27 (Sept'26)	<b>.</b> 77	8112.12 (03/13)	8112.12 (03/13)	#	<ul> <li>Contractual and Legal issues before award of works. (40 Months)</li> <li>Delay in award of works due to higher bids.</li> <li>Impact of COVID-19.</li> </ul>
17	Parnai 3x12.5= 37.5 MW JKSPDC	1 2 3	12.5 12.5 12.5	2017-18 2017-18 2017-18 (Jan'18)	2025-26 2025-26 2025-26 (Dec,25)	95	640.86 (Completion cost)	640.86 (Completion cost)	#	<ul> <li>Delay in Land acquisition.</li> <li>Slow progress in HRT.</li> <li>Contractual issues</li> </ul>
18	Kiru (4x156=624 MW) CVPPL	1 2 3 4	156 156 156 156	2023-24 2023-24 2023-24 2023-24 (Aug,23)	2025-26 2025-26 2025-26 2025-26 (Sep,26)	37	4287.59 (07/18)	4287.59 (07/18)	Nil	<ul> <li>Delay in award of works due to issue regarding sanction of Sub debt for the project between GoI and GoJK.</li> <li>Slow mobilization due to Covid-19 lockdown</li> </ul>
19	Ratle (4x205+1x30) = 850 MW RHPPL / NHPC	1 2 3 4 5	205 205 205 205 205 30	2025-26 2025-26 2025-26 2025-26 2025-26 (Feb'26)	2026-27 2026-27 2026-27 2026-27 2026-27 (Dec'26)	10	5281.94 (11/18)	5281.94 (11/18)	Nil	Project was stalled since 11.07.2014due to various issues viz. R&R issues, Local issues, Law & order problem, etc. Earlier, it was under execution by private sector developer and some works have already been done. There was no progress from 11.07.2014 to 18.01.2022. JV of Govt. of UT of J&K and NHPC was formed and contract was awarded on turnkey basis on 18.01.2022.

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1	2	4	5	6	7	8	9	10	11	12
20	Kwar (4x135=540 MW) CVPPL	1 2 3 4	135 135 135 135	2026-27 2026-27 2026-27 2026-27 (Nov'2026)	2026-27 2026-27 2026-27 2026-27 (Nov'2026)	Nil	4526.12 (Sep.'20)	4526.12 (Sep.'20)	Nil	> The project is in initial stage of construction.
	Kerala									
21	Pallivasal 2x30 = 60 MW KSEB	1 2	30 30	2010-11 2010-11 (Mar'11)	2024-25 2024-25 (June,24)	159	222 (1999)	550.00 (2018)	328 (147.74)	<ul> <li>Delay in land acquisition.</li> <li>Poor geology strata in HRT.</li> <li>Works stopped by contractor since 28.1.15 to 11.04.2017 due to contractual issues. Contract terminated on 13.09.2018 and re-awarded in August, 2019.</li> </ul>
22	Thottiyar (1x30+1x10)= 40MW KSEB	1 2	30 10	2012-13 2012-13 (Apr'12)	2024-25 2024-25 (April,24)	144	136.79 (2007)	280 (2018)	143.21 (104.69)	<ul> <li>Land acquisition issue.</li> <li>The works of weir and approach channel stopped from 2010 to 2012 by local people.</li> <li>The work stopped by Court from 12.12.2012 to April-2013.</li> <li>Financial crunch with contractor leading to foreclosure of contract in April,2017 and balance works re-awarded in January, 2018.</li> </ul>
23	Mankulam (2x20)= 40MW KSEB	1 2	20 20	2026-27 2026-27 (May 26)	2026-27 2026-27 (May 26)	Nil	600 (08/22)	600 (08/22)	Nil	> The project is in initial stage of construction.
	Punjab									
24	Shahpurkandi 3x33+3x33+1x8 =206 MW, Irrigation Deptt. &PSPCL	1 2 3 4 5 6 7	33 33 33 33 33 33 33 8	2015-16 2015-16 2015-16 2015-16 2015-16 2015-16 2015-16 (Mar,16)	2025-26 2025-26 2025-26 2025-26 2025-26 2025-26 2025-26 (Oct, 25)	115	1835.50 (04/08) (Power Component)	2368.55 (02/2018) (Power Component)	533.05 (29.04)	Works of Dam stopped since 29.08.2014 to sept. 2018 due to inter-state dispute between states of J&K & Punjab on sharing of waters of river Ravi and Tariff.
	Sikkim									
25	Teesta Stage VI	1	125	2023-24	2027-28		5748.04	5748.04	Nil	> Poor geology.

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1	2	4	5	6	7	8	9	10	11	12
	(4x125 = 500 MW) LancoTeesta Hydro Power Ltd. (LTHPL) (Project taken over by NHPC w.e.f. 08.03.2019)	2 3 4	125 125 125	2023-24 2023-24 2023-24 (March'24)	2027-28 2027-28 2027-28 (Dec,27)	45	(07/2018)	(07/2018)		<ul> <li>Land acquisition.</li> <li>Contractual issues</li> <li>Funds constraints with developer (Private) and stalled from April, 2014 to October, 2019.</li> <li>M/s. LTHPL came under Corporate Insolvency Resolution Process. NHPC Ltd. emerged as H1 bidder. CCEA approval was accorded to NHPC on 08.03.2019. NCLT on 26.07.2019 approved resolution plan of NHPC for acquisition of LTHPL.</li> </ul>
26	Rangit-IV HE Project (3X40 = 120 MW) NHPC	1 2 3	40 40 40	2023-24 2023-24 2023-24 (March'24)	2025-26 2025-26 2025-26 (May'25)	14	938.29 (10/19)	938.29 (10/19)	Nil	<ul> <li>Poor geology in HRT.</li> <li>Project was stalled since October, 2013 due to funds constraints with the developer. The project was under NCLT process since 9th April, 2019. The project has been awarded to NHPC. CCEA approval was accorded on 30.03.2021. The contract was awarded in 2021.</li> </ul>
	Tamil Nadu									
27	Kundah PSP (Phase-I, Phase-II & Phase-III) (4x125=500 MW) TANGEDCO	1 2 3 4	125 125 125 125 125	2021-22 2021-22 2021-22 2021-22 (Aug,21)	2025-26 2025-26 2025-26 2025-26 (Jul,25)	47	1216.59 (2007-08)	3401 (2014)	2184.41 (179.55)	<ul> <li>Delay in award of civil works.</li> <li>Civil &amp; HM works have been taken up from 05/2018 &amp; EM works awarded in 11/2019</li> </ul>
	Uttartakhand									
28	Tapovan Vishnughad (4x130 = 520 MW) NTPC	1 2 3 4	130 130 130 130	2012-13 2012-13 2012-13 2012-13 (Mar'13)	2028-29 2028-29 2028-29 2028-29 (Mar'29)	191	2978.48 (03/04)	5867.38 (2018)	2888.77 (96.99)	<ul> <li>Heavy water ingress due to bad geology in HRT and rock fall on TBM. TBM stuck up thrice.</li> <li>Flash flood in Aug'12 &amp; June, 2013 damaging coffer dam.</li> <li>Termination of civil contracts for Barrage and HRT.</li> <li>Cash flow issues with civil contractors</li> <li>The unprecedented, devastating flash flood on 07.02.2021,due to glacial outburst, avalanching into Rishiganga River has hit the project Components.</li> </ul>

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1	2	4	5	6	7	8	9	10	11	12
										<ul> <li>Barrage DC basin, Intake Part HRT and SFT was filled with Muck. Radial gates of barrage packages were washed away.</li> <li>Work on the project stopped since 05.01.2023 by the district administration due to subsidence in Joshimath area. Hon'ble High Court allowed for some essential works vide order dated 23.05.2023</li> </ul>
29	Tehri PSS (4x250 = 1000 MW) THDC	1 2 3 4	250 250 250 250 250	2015-16 2015-16 2015-16 2015-16 (Feb'16)	2024-25 2024-25 2024-25 2024-25 (Oct'24)	104	1657.60 (12/05)	4825.60 (02/19)	3168 (191.11)	<ul> <li>Poor geology.</li> <li>Local agitation at Asena Quarry / muck disposal area.</li> <li>Revision of Lay out of machine hall due to poor geology.</li> <li>Funds constraints with contractor.</li> </ul>
30	Vishnugad Pipalkoti (4x111 = 444 MW) THDC	1 2 3 4	111 111 111 111	2013-14 2013-14 2013-14 2013-14 (Jun'13)	2026-27 2026-27 2026-27 2026-27 (Jun'26)	156	2491.58 (03/08)	3860.35 (02/19)	1368.77 (54.93)	<ul> <li>CCEA approval in Aug-2008 but works could not be awarded due to Forest clearance/diversion of forest land. Forest land was acquired in January-14 and subsequently works awarded in January-2014.</li> <li>Disruption of works by local people.</li> <li>Cash flow problem with contractor.</li> </ul>
31	Lakhwar Multipurpose project (3x100=300 MW) UJVNL	1 2 3	100 100 100	2028-29 2028-29 2028-29 (Oct. 28)	2028-29 2028-29 2028-29 (Oct. 28)	Nil	5747.17 (07/18)	5747.17 (07/18)	Nil	The project is in initial stage of construction.
	West Bengal									
32	Rammam-III (3x40= 120 MW)	1 2 3	40 40 40	2019-20 2019-20 2019-20 (Sep'19)	2028-29 2028-29 2028-29 (Mar,29)	114	1381.84 (09/14)	1381.84 (09/14)	#	<ul> <li>Delay in getting permission for tree felling from Govt. of West Bengal for Access road from Adit-1 to Adit-2.</li> <li>Cash flow issues with civil contractors.</li> <li>Strike / bandh during Gorkhaland agitation in 2017.</li> </ul>

Part B – Held-up Under Construction Projects

Sl. No	Project Name/(I.C.)/ Executing Agency	Unit No.	Cap. (MW)	Original Comm. Sched.	Latest/ Anticipated Comm. Sched.	Time over run (months	Org. Cost (Rs. in Crores) (Price Level)	Latest/Ant. Cost (Rs. in Crores) (Price Level)	Cost over run (Rs. in Crores) (%)	Major reasons for time over run
1	2	4	5	6	7	8	9	10	11	12
	Himachal Pradesh									
1	Tangnu Romai-I (2x22 = 44 MW) TRPGPL	1 2	22 22	2014-15 2014-15 (Jun'14)	2027-28 2027-28 (subject to <b>re-start</b> of works(4 years))	165	255.00 (01/07)	641.89 (2018)	386.89 (151.72)	<ul> <li>Works on hold since Aug 2016. Funds constraints with the developer.</li> <li>Project is likely to be commissioned 4 years after restart of works.</li> </ul>
	Govt. of UT of J&K									
2	Lower Kalnai 2x24= 48 MW JKSPDC	1 2	24 24	2017-18 2017-18 (Sep'17)	2026-27 2026-27 (subject to <b>re-start</b> of works (4 years))	114	576.87 (12/12) (Completion cost)	576.87 (12/12) (Completion cost)	#	Works on all fronts at Dam and Power House site are stalled since 24.01.2018 due to payment dispute with subcontractors and due to non-settlement of extension of time of the contract by the JKSPDC. The contract with M/s. Coastal Projects Ltd. has been terminated and retendering for selection of EPC contractor is under process.
	Madhya Pradesh									
3	Maheshwar (10x40 = 400 MW) SMHPCL	1 2 3 4 5 6 7 8 9 10	40 40 40 40 40 40 40 40 40 40	2001-02 2001-02 2001-02 2001-02 2001-02 2001-02 2001-02 2001-02 2001-02 (Mar'02)	2027-28 (subject to restart of works(Two years)	312	1569.27 (96-97)	6793 (2016-17)	5223.73 (332.87)	Matter is sub-judice. Works suspended since Nov-11 due to cash flow problem with developer. M.P. Power Management Company Ltd. has terminated the Power Purchase Agreement with SMHPCL on 18.04.2020. The application of PFC has been admitted in NCLT on 27.09.2022 under IBC. CIRP has been put on hold by NCLT vide order dated 17.03.2023 in an application filed by Entegra Ltd. PFC has filed an Appeal before the NCLAT against the NCLT Order dated 17.03.2023 for recommencement of CIRP.Project is likely to be commissioned 2 years after restart of works
	Maharashtra									
4	Koyna Left Bank PSS 2x40 = 80 MW WRD, Maha	1 2	40 40	2014-15 2014-15 (Oct'14)	2027-28 (subject to restart of works (4 years)	161	245.02 (1999)	379.78 (2014)	134.76 (54.99)	Project stalled since July, 2015. The current expenditure on the project has already reached to almost original administrative approved cost level.

Sl. No	Project Name/(I.C.)/ Executing Agency	Unit No.	Cap. (MW)	Original Comm. Sched.	Latest/ Anticipated Comm. Sched.	Time over run (months	Org. Cost (Rs. in Crores) (Price Level)	Latest/Ant. Cost (Rs. in Crores) (Price Level)	Cost over run (Rs. in Crores) (%)	Major reasons for time over run
1	2	4	5	6	7	8	9	10	11	12
5	Sikkim  Bhasmey (2x25.5 =51 MW) Gati Infrastructure	1 2	25.5 25.5	2012-13 2012-13 (Jun'12)	2027-28 2027-28 (subject to <b>re-start</b> of works(3 years))	189	408.50 (2012-13)	746.01 (03/18)	337.51 (82.62)	Matter is sub-judice. The Court appointed Resolution Professional for Bhasmey HEP stated that works stalled since Sept., 2016. CIRP has been initiated against Gati infra and NCLT has appointed Resolution Professional .The Resolution Professional has received 4 Resolution Plan in the matter of Gati Infrastructure Bhasmey Power Private Limited and are pending for approval from the Committee of Creditors. Project is likely to be commissioned 4 years after restart of works.
6	Rangit-II 2x33= 66 MW Sikkim Hydro Power Ltd.	1 2	33 33	2015-16 2015-16 (Apr'15)	2027-28 2027-28 (subject to restart of works(2- ½ years))	155	496.44 (2011-12)	496.44 (2011-12)	#	Works stalled since Dec., 2017. Funds constraints with the developer. Project is likely to be commissioned 3 years after restart of works
7	Panan 4x75= 300 MW Himagiri Hydro Energy Pvt. Ltd.	1 2 3 4	75 75 75 75 75	2018-19 2018-19 2018-19 2018-19	2028-29 2028-29 2028-29 2028-29 (subject to restart of works(4-1/2 years)	120	1833.05 (2009)	2675.00 (2020)	841.95 (45.93)	Accessibility to Project site. The permanent bridge over Mantam Lake for accessibility to Dam site is being constructed by Sikkim PWD which is likely to be completed by Nov' 2024. The Financial Institutes are awaiting for completion of bridge, thereafter the process of financing the project can start. Project is likely to be commissioned 5 years after restart of works.
	Uttartakhand									
8	Lata Tapovan (3x57 = 171 MW) NTPC	1 2 3	57 57 57	2017-18 2017-18 2017-18 (Aug'17)	2028-29 2028-29 2028-29 (subject to restart of works(4 years))	139	1527.00 (07/12)	1527.00 (07/12)	#	Infrastructure works almost completed. As per Hon'ble Supreme Court vide its order dated 07.05.2014 stayed the construction of 24 Hydro projects in Uttarakhand including Lata Tapovan HEPP. According all construction

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1	2	4	5	6	7	8	9	10	11	12
										activities stopped since 08.05.14. Main works to re-start after clearance from Hon'ble Supreme Court.
	Phata Byung (2x38 = 76 MW), MJUPL	1 2	38 38	2012-13 2012-13 (Jun'12)	2025-26 2025-26 (subject to <b>re-start</b> of works(3 years))	165	520.00 (2013-14)	1132 (09/16)	612 (117.69)	➤ Works stalled since July, 2017 due to Financial crunch. The project stands alloted to M/s Statkraft IH through NCLT on 23.03.2023. The revival of Environmental clearance is under process. Project is likely to be commissioned 2 years after restart of works.

Note:- It is to mention that cost overrun has been calculated as the difference between the Latest Cost (provided by the developer to CEA along with the Price Level) and the Original Cost approved by the Central Government / State Government. In most of the cases the Latest cost at the current Price Level has not been provided by the developers.

<sup>#</sup> Cost overrun could not be calculated due to non-availability of latest cost.