

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. 104

QUARTERLY REVIEW No. 104

जनवरी ~ मार्च, 2021

जल विद्युत् परियोजना प्रबोधन प्रभाग

नई दिल्ली

मई ~ 2021

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PREFACE

Present Review

This quarterly review which is **104th** in the series covers the period from **January ~ March, 2021**. The objective of this review is to provide up to date information in respect of Hydro Electric (HE) Projects under construction/implementation in the country.

This quarterly review has been brought out by CEA on the basis of data received from various project authorities, visit made to different HE projects and discussions held with the executing agencies and suppliers of equipment from time to time.

Milestone Achieved during January ~ March, 2021

Details of HE Projects Rolled/Commissioned during the Quarter is indicated in Chapter-1.

Plan / Year wise Hydro Capacity Addition / Under Execution

Hydro Capacity Addition – Financial Year Wise Lists are placed in Chapter 2.2(a) to 2.2 (l). Summary of Hydro Capacity Addition is in Ch. 2.3 (2020-26), Hydro Electric Projects Under Execution – Year wise Lists are placed in Chapter 2.3(a) to 2.3(g).

Growth of Installed Capacity, Hydro Capacity Addition

A Graphical representation of Trends & Growth of Installed Capacity, Hydro Capacity Addition of Hydro-Thermal-Nuclear HEPs during Plans/Years is placed in Chapter 3 & 4.

Sanctioned Hydro Electric Projects

A Sector wise list of Sanctioned H.E. project Under Execution is placed in Chapter 5.

Status of Sanctioned Hydro Electric Projects

Broad present status of HE projects commissioned during the financial year & Under Execution is given in Chapter 6.

Financial Status of Hydro Electric Projects

Financial status of HE projects supplied by project authorities (unaudited) is given in Chapter 7.

Status of Environment & Forest Clearances of H.E. Projects.

The status of Environmental & Forest clearance of HE projects is given in Chapters 8.

Dates of Award of First Civil Package

The date of award of First Civil Package for HE projects under execution is indicated in Chapter 9.

Ordering Status of TG set.

Details of Ordering status of TG Set for HE projects under construction is given in Chapters 9.1 and 9.2.

**Status of Financial
closure of Private
Sector Hydro Electric
Projects**

Details of financial closure of Private Sector HE projects is given in Chapter-10.

**Time & Cost Over-run
of Ongoing Hydro
Projects**

The Status of Time & Cost Over-run of HE projects under execution is given in Chapter 11.

Exclusions

The review does not cover HE projects categorised as renewable, each with a total installed capacity of 25 MW and below, as these schemes come under the purview of Ministry of New & Renewable Energy (MNRE).

Any suggestions/feedback for further improvement in the quarterly review shall be appreciated.

The report is in fulfilment of CEA's obligation under Electricity Act, 2003.

Executive Summary

Trend of Hydro-Thermal-Nuclear Mix of Installed Capacity (As on 31.03.2021).

Hydro:	46,209.22MW	(16.06 %)
Thermal:	2,34,728.22 MW	(81.58 %)
Nuclear:	6,780.00 MW	(2.36 %)
Total: (excluding RES)	2,87,717.44 MW	

Sector wise Hydro Capacity Under Execution: A hydro capacity of **12,690.50 MW** is under execution. Sector wise summary is given as under: -

Sector	Under Execution (MW)
Central	8419
State	2601.5
Private	1670
Total:	12690.5

Sector wise summary for the financial year 2020-21 given as under: -

Year	Monitorable Targets (MW)	Capacity Addition (MW)	Sector					
			Central		State		Private	
			Tgt.	Act.	Tgt.	Act.	Tgt.	Act.
2020-21	606	510	300	300	111	111	195	99

Monitorable Targets for Hydro Capacity Addition for the year 2021-22:

Monitorable Targets for hydro capacity addition for the year 2021-22 is **493 MW** (100 MW in State Sector and 393 MW in Private Sector). Details are as under: -

Sl. No.	Particular	Unit Nos.	Cap. (MW)	Capacity Addition as Programmed	Remarks
A.	State Sector				
1	Pallivasal KSEB, Kerala 2x30=60 MW	Unit #1 Unit # 2	30 30	December'21 December'21	
2	Thottiyar KSEB, Kerala 1x30+1x10=40MW	Unit #1 Unit # 2	10 30	December'21 December'21	
	Sub- total (A):		100 MW		

Sl. No.	Particular	Unit Nos.	Cap. (MW)	Capacity Addition as Programmed	Remarks
B.	Private Sector				
3	Sorang HSPCL, H.P. 2x50=100 MW	Unit #1 Unit # 2	50 50	June'21 June'21	
4	Bajoli Holi GMRBHPPL, H.P. 3x60=180 MW	Unit #1 Unit # 2 Unit # 3	60 60 60	June'21 June'21 June'21	
5	Rongnichu MBPCL, Sikkim 2x56.5=113 MW	Unit #1 Unit # 2	56.5 56.5	May'21 May'21	Capacity of Rongnichu HEP has been enhanced from 96 MW to 113 MW
	Sub- total (B):		393 MW		
	Total (A+B)		493 MW		

CHAPTER- 1

Milestones achieved during the Quarter January ~ March, 2021

1. Capacity addition: -

Sl. No.	Particulars	Unit No.	Capacity (MW)	Remarks
1.	Kameng, NEEPCO / Arunachal Pradesh/ 02.12.2004 4x150 =600 MW	Unit #3	150	Taken into capacity addition on 21.01.2021
		Unit #4	150	Taken into capacity addition on 11.02.2021
		Total	300 MW.	
Total during the current quarter (Central Sector) – 300 MW.				

2. New Hydro Electric Projects taken in the list of under construction projects.

NIL

CHAPTER - 2

Plan wise Hydro capacity Target Vs Achievement since 4th Plan

Plan / Year	Target (MW) (Original)	Capacity Addition (MW)	% Achieved
4th Plan (1969-74)	3518.00	1058.39	30.08
5th Plan (1974-79)	4654.00	3867.77	83.11
Annual Plan (1979-80)	548.00	550.9	100.53
6th Plan (1980-85)	4768.00	3076.05	64.51
7th Plan (1985-90)	5541.25	3828.41	69.09
Annual Plan (1990-91)	1006.50	445.5	44.26
Annual Plan (1991-92)	754.30	436	57.8
8th Plan (1992-97)	9282.15	2427.65	26.15
9th Plan (1997-02)	9817.70	4538.25	46.23
10th Plan (2002-07)	14393.20	7886	54.79
11th Plan (2007-12)	15627.00	5544	35.48
12 th Plan (2012-17)	10897.00	5479	50.28
2017-18	1305.00	795	60.92
2018-19	840.00	140	16.67
2019-20	1190.00	300	25.21
2020-21	606.00	510	84.16

CHAPTER - 2.1

Year/Plan wise Hydro Capacity Addition in the Country

S.No.	Year	Target (Original)	Capacity Addition (MW)	% Achieved	Remarks
1st Five Year Plan (1.1.51 to 31.12.55)					
1	1951		15.89		
2	1952		140.00		
3	1953		16.00		
4	1954		62.17		
5	1955		<u>146.13</u>		
	Total :		<u>380.19</u>		
2nd Five Year Plan (1.1.56 to 31.03.61)					
6	1956		121.96		
7	1957-58		152.48		
8	1958-59		147.52		
9	1959-60		168.71		
10	1960-61		<u>386.51</u>		
	Total :		<u>977.18</u>		
3rd Five Year Plan (1.4.61 to 31.03.66)					
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 :		<u>2207.08</u>		
Annual Plans (1966-67, 67-68, 68-69)					
16	1966-67		633.48		
17	1967-68		729.70		
18	1968-69		419.99		
4th Five Year Plan (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	<u>1058.39</u>	30.08	
5th Five Year Plan (1.4.74 to 31.03.79)					
24	1974-75		563.94		
25	1975-76		934.36		
26	1976-77		561.30		
27	1977-78		995.32		
28	1978-79		<u>812.85</u>		
	Total :	4654	<u>3867.77</u>	81.11	
Annual Plan (1979-80)					
29	1979-80	548	550.90	100.18	
6th Five Year Plan (1.4.80 to 31.03.85)					
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	

S.No.	Year	Target (Original)	Capacity Addition (MW)	% Achieved	Remarks
7th Five Year Plan (1.4.85 to 31.03.90)					
35	1985-86		1012.00		
36	1986-87		704.525		
37	1987-88		1069.285		
38	1988-89		532.70		
39	1989-90		<u>509.90</u>		
	Total :	5541.25	<u>3828.41</u>	69.09	
Annual Plans (1990-91, 91-92)					
40	1990-91	1006.5	445.50	44.26	
41	1991-92	754.3	436.00	57.8	
8th Five Year Plan (1.4.92 to 31.03.97)					
42	1992-93	372.95	372.95		
43	1993-94	957.65	797.15		
44	1994-95	1192.55	450.00		
45	1995-96	1846	147.05		
46	1996-97	4913	<u>660.50</u>		
	Total :	9282.15	<u>2427.65</u>	26.15	
9th Five Year Plan (1.4.97 to 31.03.2002)					
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	<u>1106.25</u>		
	Total :	9817.7	<u>4538.25</u>	46.22	
10th Five Year Plan (1.4.02 to 31.03.07)					
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 Highest
	Total :	14393	7886.00	54.79	
11th Five Year Plan (1.4.07 to 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 Plan (1.4.12 to 31.03.17)					
62	2012-13	802 ★	510		
63	2013-14	1198 ★	1058		
64	2014-15	842 ★	736		
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 ★			

★ Targets set at the beginning of the year.

Chapter- 2.1a

Hydro Capacity Addition during the Year 2012-13

Sl. No.	Particular	Unit Nos.	Target (MW)	Commissioning as programmed	Actual (MW)	Actual (A)/ Anticipated	Remarks/Critical Issue
A. Central Sector							
1.	Chamera-III NHPC, H.P. 3x77= 231 MW	1 2 3	77 77 77	Jun-12 Aug-12 Oct -12	77 77 77	28.06.2012(A) 12.06.2012(A) 07.06.2012(A)	Commissioned
2.	Uri-II NHPC, J&K 4x60= 240 MW	1 2 3 4	60 60 60 60	Aug -12 Sept -12 Nov-12 Dec-12	-	Slipped Slipped Slipped Slipped	- Local agitation from mid March, 12 to June, 12 end. - TRT was flooded on 17.09.12 due to flash flood. - Filling of U/s Water conductor system delayed due to agitation by local people demanding employment in NHPC.
3.	Chutak NHPC, J&K 4x11 =44 MW	1 2 3 4	11 11 11 11	Sept-12 Sept-12 Nov -12 Dec-12	11 11 11 11	22.11.2012(A) 08.11.2012(A) 11.11.2012(A) 28.01.2013(A)	Commissioned
4.	Parbati-III NHPC, HP 4x130= 520 MW	1	130	Mar-13	-	Slipped	- Non-availability of transmission system. - Non completion of Surge shaft gates.
Sub- total (A):			645		275		
B. State Sector							
5.	Bhawani Kattalai -II TANGEDCO, T.N Tamil Nadu, 2x15 = 30 MW	1 2	15 15	June-12 July-12	-	Slipped	- Unit #1&2 synchronised at part load in July, 11 & Sept, 11 - Reservoir filling delayed on account of less release from Mettur dam.
6.	Bhawani Kattalai -III TANGEDCO, T.N 2x15 = 30 MW	1	15	Oct-12	15	08.12.12(A)	Commissioned
7.	Myntdu MeECL, Meghalaya 3x42 = 126 MW	3	42	Mar-13	42	07.03.2013(A)	Commissioned
Sub- total (B):			87		57		
C. Private Sector							
8.	Budhil Lanco H P 2x35=70 MW	1 2	35 35	May-12 July-12	35 35	30.05.2012(A) 26.05.2012(A)	Commissioned
Sub- total (C):			70		70		
Total (A+B+C)			802		402		
Out side the programme of 2012-13.							
1.	Teesta Low Dam –III NHPC, WB 4x33=132 MW	1 2 3	- - -	2013-14 2013-14 2013.14	33 33 33	30.01.2013(A) 20.01.2013(A) 24.02.2013(A)	Commissioned
2.	Jaldhaka (WBSEDCL) West Bengal 4x9=36 MW	4	-	-	9	08.10.2012(A)	Commissioned
Sub- total : Outside			-		108		
Grand Total: 2012-13			802		510		

Chapter- 2.1b

Hydro Capacity Addition during the Year 2013-14

Sl. No.	Particular	Unit Nos.	Capacity (MW)		Commissioning		Remarks/Critical Issue
			Target	Actual	As Programmed	Actual (A)/ Anticipated	
A. Central Sector							
1	Teesta Low Dam-III NHPC, WB. 4x33= 132 MW	Unit # 4	33	33	April-13	01.04.2013(A)	Commissioned
2	Uri-II NHPC, J&K 4x60= 240 MW	Unit # 1 Unit # 2 Unit # 3 Unit # 4	60 60 60 60	60 60 60 60	May-13 June- 13 July- 13 July- 13	25.09.2013 (A) 16.11.2013 (A) 27.09.2013 (A) 02.02.2014 (A)	Commissioned
3	Parbati-III NHPC, HP 4x130= 520 MW	Unit # 1 Unit # 2 Unit # 3	130 130 130	130 130 130	June-13 July -13 Feb- 14	18.02.2014 (A) 27.02.2014 (A) 15.03.2014 (A)	Commissioned
4	Nimoo Bazgo NHPC, J&K 3x15 =45 MW	Unit # 1 Unit # 2 Unit # 3	15 15 15	15 15 15	Dec- 13 Nov -13 Nov-13	02.11.2013 (A) 31.10.2013 (A) 30.10.2013 (A)	Commissioned
5	Rampur SJVN Limited, HP. 6x68.67 = 412 MW	Unit # 1 Unit # 2 Unit # 5	68.67 68.67 68.67	68.67 68.67 68.67	Jan- 14 Feb- 14 Mar- 14	23.03.2014 (A) 21.03.2014 (A) 29.03.2014 (A)	Commissioned
	Sub- total (A):		914	914			
B. State Sector							
6.	Lower Jurala APGENCO, A.P. (6x40=240 MW)	Unit # 1	40	-	Dec-13	Slipped	-Unit was synchronized at part load on 29.12.13, but full load commissioning could not be achieved due to non-availability of sufficient water.
7	Bhawani Kattalai -II TANGEDCO, T.N Tamil Nadu, 2x15 = 30 MW	Unit # 1 Unit # 2	15 15	15 15	July -13 Aug- 13	27.08.2013 (A) 06.09.2013 (A)	Commissioned
8	Bhawani Kattalai -III TANGEDCO, T.N Tamil Nadu, 2x15 = 30 MW	Unit # 2	15	15	June -13	25.09.2013 (A)	Commissioned
	Sub- total (B):		85	45			
C. Private Sector							
9	Sorang Himachal Sorang Power Pvt. Ltd, H P. 2x50=100 MW	Unit # 1 Unit # 2	50 50	- -	Nov-11 Dec-11	Slipped	- Commissioning delayed, cracks developed in penstock during filling of water conductor system in 1 st week of Nov-2013.
10	Chuzachen Gati Infra. Limited, Sikkim 2x49.5= 99 MW	Unit # 1 Unit # 2	49.5 49.5	49.5 49.5	June -13 July -13	21.04.2013(A) 20.04.2013(A)	Commissioned
	Sub- total (C):		199	99			
	Total (A+B+C)		1198	1058			

Out side RFD achievements: Unit # 2 (40 MW) of Lower Jurala HEP was synchronized at part load on 10.01.2014, but full load commissioning could not be achieved due to non-availability of sufficient water.

Chapter- 2.1c

Hydro Capacity Addition during the Year 2014-15

Sl. No.	Particular	Unit Nos.	Capacity (MW)		Commissioning		Remarks/Critical Issue
			Target	Actual	As Programmed	Actual (A)/ Anticipated	
A. 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
Out side the Programme							
3	Koldam 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. State Sector							
4	Lower Jurala TSGENCO, Telangana 6x40= 240 MW	Unit # 1 Unit # 2 Unit # 3 Unit # 4	40 40 40 40	0 0 0 0	Jul.-14 Jul.-14 Oct.-14 Mar.-15	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			
C. Private Sector							
6	Jorethang Loop DANS Pvt. Ltd., Sikkim 2x48= 96 MW	Unit # 1 Unit # 2	48 48	0 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- 2.1d

Hydro Capacity Addition during the Year 2015-16

Sl. No.	Particular	Unit Nos.	Capacity (MW)		Commissioning		Remarks/Critical Issue
			Target	Actual	As Programmed	Actual (A)/ Anticipated	
A.	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 Coffey Dam in June'15 and many times thereafter. Slow progress of works in Dam concreting.
	Sub- total (A):		590	480			Achieved:-480 MW
B.	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 Commissioned during 2015-16.						

Out side RFD achievements:

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

Chapter- 2.1e

Hydro Capacity Addition during the Year 2016-17

Sl. No.	Particular	Unit Nos.	Capacity (MW)		Commissioning		Remarks/ Critical Issue
			Target	Actual	As Programmed	Actual(A)/ Anticipated	
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	Kameng 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	Sainj 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	30 30	30 -	Aug.16 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			

Chapter- 2.1e

	Total C.S.+S.S.+P.S.)		1714	929			
		Out Side Programme					
1	Kashang-II & III HPPCL , HP 1x65+1x65= 130MW	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. Sikkim 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- 2.1f

Hydro Capacity Addition during the Year 2017-18

Sl. No.	Particular	Unit Nos.	Capacity (MW)		Commissioning		Remarks / Critical Issues
			Actual	Target	As Programmed	Actual (A)/ Anticipated	
A.	Central Sector						
1	Tuirial 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 Commissioned in Central Sector : 390 MW		
B.	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 Commissioned in State 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 Commissioned in Private Sector : 205 MW		
	Total (A+B+C)		1305	795	Total Commissioned during 2017-18 : 795 MW.		

Chapter- 2.1g

Hydro Capacity Addition during the Year 2018-19

Sl. No.	Particular	Unit Nos.	Capacity (MW)		Commissioning		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	Total Commissioned in Central Sector :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 Comm. 140 MW	

Chapter-2.1h

Hydro Capacity Addition during the Year 2019-20

Sl. No.	Particular	Unit Nos.	Capacity (MW)		Commissioning		Remarks / Critical Issues
			Target	Actual	As Programmed	Actual (A)/ Anticipated	
A.	Central Sector						
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 delays. -Difficult approach and working condition. -Ventilation 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)	- Delay in completion of HRT works & associated transmission line. - During filling of water conductor system in May,20, leakage is observed in adit to HRT
	Sub- total (B):		211				
C.	Private Sector						
4.	Bajoli Holi 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

Sl. No.	Particular	Unit Nos.	Capacity (MW)		Commissioning		Remarks / Critical Issues
			Target	Actual	As Programmed	Actual (A)/ Anticipated	
A.	Central Sector						
1	Kameng NEEPCO, Arunachal Pradesh 4x150=600 MW	Unit # 3 Unit # 4	150 150	300	March,21 March,21	21.01.2021 11.02.2021	Commissioned Commissioned
	Sub- total (A):		300	300			
B.	State Sector						
2	Sawra Kuddu HPPCL, H.P. 3x37=111 MW	Unit #1 Unit # 2 Unit # 3	37 37 37	111	(March,21) (March,21) (March,21)	12.11.2020 05.12.2020 16.12.2020	Commissioned Commissioned Commissioned
	Sub- total (B):		111	111			
C.	Private Sector						
3.	Singoli Bhatwari L&T, Uttarakhand 2x33=99 MW	Unit #1 Unit # 2 Unit # 3	33 33 33	99	March.,20 March.,20 March.,20	19.11.2020 18.12.2020 25.12.2020	Commissioned Commissioned Commissioned
4.	Rongnichu 2x48= 96 MW* Madhya Bharat Power Corpn., Sikkim	Unit #1 Unit # 2	48 48	--	March,21 March,21	*To be commissioned in FY 2021-22 with 17 MW enhanced capacity	
	Sub- total (C):		195				
	Total (A+B+C)		606	510			

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

Chapter -2.1 J

Hydro Capacity addition Programme for 2021-22

Sl. No.	Particular	Unit Nos.	Capacity (MW)		Capacity Addition		Remarks/Critical Issues
			Target	Actual	As Programmed	Actual/ Anticipated	
A.	State Sector						
1	Pallivasal KSEB, Kerala 2x30=60 MW	Unit #1 Unit # 2	30 30		December'21 December'21		
2	Thottiyar KSEB, Kerala 1x30+1x10=40MW	Unit #1 Unit # 2	10 30		December'21 December'21		
	Sub- total (A):		100 MW				
B.	Private Sector						
3	Sorang HSPCL, H.P. 2x50=100 MW	Unit #1 Unit # 2	50 50		June'21 June'21		
4	Bajoli Holi GMRBHHPL, H.P. 3x60=180 MW	Unit #1 Unit # 2 Unit # 3	60 60 60		June'21 June'21 June'21		
5	Rongnichu MBPCL, Sikkim 2x56.5=113 MW	Unit #1 Unit # 2	56.5 56.5		May'21 May'21		
	Sub- total (B):		393 MW				
	Total (A+B)		493 MW				

Chapter- 2.2

SUMMARY

Hydro Capacity Addition during the Period 2021-26

	2021-22		2022-23		2023-24		2024-25		2025-26		Total	
	MW	Nos.	MW	Nos.	MW	Nos.	MW	Nos.	MW	Nos.	MW	Nos.
CENTRAL	0	0	1980	4	3464	4	744	2	2231	4	8419	14
STATE	100	2	257.5	3	500	1	1296	3 #	608	3#	2601.5	12
PRIVATE	393	3	100	1	400	1	477	5	300	1	1670	11
	493	5	2337.5	8	4364	6	2517	10	2979	8	12690.5	37#

Note:

At present, there are 36 no. of Hydro Electric Projects (above 25 MW) totaling to **12690.50 MW** which are under construction in the country. Central Sector – 14 nos. (8419 MW), State Sector – 11 nos. (2601.50 MW), Private Sector – 11 nos. (1670 MW).

Out of these, 23 nos. of Hydro Power Project totaling to 9004.5 MW are under active construction and on 13 nos. of Hydro Power Project totaling to 3686 MW construction is held-up.

Polavaram Hydroelectric Project is bifurcated for benefits during more than one year.

Chapter- 2.2 (a)

FY: 2021-22

**List of under construction Hydro projects
(above 25 MW & excluding Projects under ministry of New & Energy)**

Sl. No.	Name of Project	Unit No.	State/ Implem. Agency	Capacity (MW)	Remarks
	State Sector				
2	Thottiyar 1x30 + 1x10= 40 MW	U-1 to U-2	Kerala/ KSEB	40	
3	Pallivasal 2x30= 60 MW	U-1 to U-2	Kerala/ KSEB Ltd.	60	
			Sub- total (State):	100	
	Private Sector				
4	Bajoli Holi 3x60= 180 MW	U-1 to U-3	Himachal Pradesh/ GMR Bajoli Holi Hydro Power Pvt. Ltd.	180	
5	Sorang 2x50= 100 MW	U-1 & U-2	Himachal Pradesh/ Himachal Sorang Power	100	
6	Rongnichu* 2x56.5= 113 MW	U-1 to U-2	Sikkim/ Madhya Bharat Power Corporation Ltd.	113	
			Sub- total (Private):	393	
			Total (SS+PS)	493	

* Rongnichu HEP, which was programmed to be commissioned in 2020-21 has been slipped to 2021-22. Further, the capacity of Ronginichu HEP has been enhanced from 96 MW to 113 MW.

Chapter- 2.2 (b)

FY: 2022-23

**List of under construction Hydro projects
(above 25 MW & excluding Projects under ministry of New & Energy)**

Sl. No.	Name of Project	Unit No.	State/ Implem. Agency	Capacity (MW)	Remarks
A	Central Sector				
1	Rammam-III 3x40=120 MW	U-1 to U-3	West Bengal /NTPC	120	
2	Tehri PSS 4x250= 1000 MW	U-1 to U-4	Uttarakhand/ THDC	1000	
3	Naitwar Mori 2 x 30 +60 MW	U-1 to U-2	Uttarakhand/ SJVNL	60	
4	Parbati St. II 4x200= 800 MW	U-1 to U-4	Himachal Pradesh/ NHPC	800	
			Sub- total (Central):	1980	
B	State Sector				
5	Uhl III 3x33.33= 100 MW	U-1 to U-3	Himachal Pradesh/ BVPCL	100	
6	Parnai 3x12.5= 37.5 MW 2x30= 60 MW	U-1 to U-3 U-2	Jammu & Kashmir/ JKSPDC KSEB Ltd.	37.5	
7	Vyasi 2x60=120 MW	U-1 to U-2	UJVNL/ Uttarakhand	120	
			Sub- total (State):	257.5	
C	Private Sector				
8	Tidong-I 2x50= 100 MW	U-1 to U-2	Himachal Pradesh/ M/s Statkraft India Pvt. Ltd.	100	
			Sub- total (Private):	100	
Total (CS+SS+PS)				2337.5	

Chapter- 2.2(c)

FY: 2023-24

**List of under construction Hydro projects
(above 25 MW & excluding Projects under ministry of New & Energy)**

Sl. No.	Name of Project	Unit No.	State/ Implem. Agency	Capacity (MW)	Remarks
	Central Sector				
1	Vishnugad Pipalkoti 4x111= 444 MW	U-1 to U-4	Uttarakhand/ THDC	444	
2	Subansiri Lower 8x250= 2000 MW	U-1 to U-8	Arunachal Pradesh/ NHPC	2000	
3	Teesta- VI 4x125= 500 MW	U-1 to U-4	Sikkim/ NHPC	500	
4	Tapovan Vishnugad 4x130=520 MW	U-1 to U-4	Uttarakhand / NTPC	520	
			Sub- total (Central):	3464	
	State Sector				
5	Kundah Pumped Storage (Phase-I, Phase-II & Phase-III) 4x125=500 MW	U-1 to U-4	Tamil Nadu/ TANGEDCO	500	
			Sub- total (State):	500	
	Private Sector				
6	Maheshwar # 10x40= 400 MW	U-1 to U-10	Madhya Pradesh/ SMHPCL	400	Subject to re-start of works
			Sub- total (Private):	400	
Total (CS+SS+PS)				4364	

Chapter- 2.2(d)

FY: 2024-25

**List of under construction Hydro projects
(above 25 MW & excluding Projects under ministry of New & Energy)**

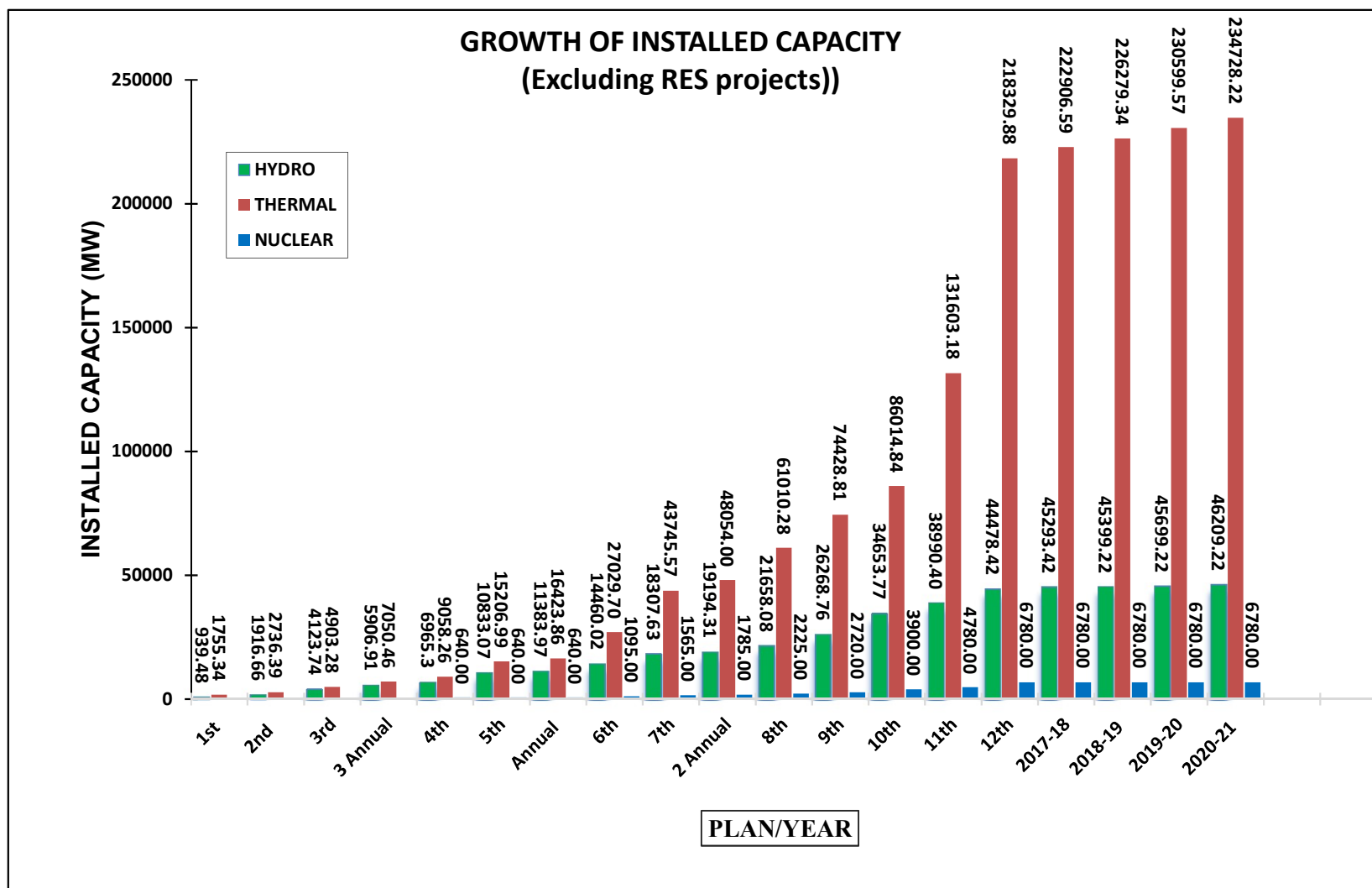
Sl. No.	Name of Project	Unit No.	State/ Implem. Agency	Capacity (MW)	Remarks
A	Central Sector				
1	Kiru 4x156=624 MW	U-1 to U-4	Jammu & Kashmir/ CVPPL	624	
2	Rangit-IV 3x40= 120 MW	U-1 to U-3	Sikkim/ Jal Power corp. Ltd.	120	
			Sub- total (Central):	744	
B	State Sector				
3	Shahpurkandi 3x33+3x33+1x8= 206 MW	U-1 to U-7	Punjab/ Irr. Deptt. & PSPCL	206	
4	Polavaram 12x80= 960 MW	U-1 to U-8	Andhra Pradesh/ Polavaram Project Authority	640	
5	Shongtong Karcham 3x150= 450 MW	U-1 to U-3	Himachal Pradesh/ HPPCL	450	
			Sub- total (State):	1296	
C	Private Sector				
6	Kutehr 3x80=240 MW	U-1 to U-3	Himachal Pradesh JSW Energy	240	
7	Phata Byung 2x38= 76 MW	U-1 to U-2	Uttarakhand/ M/s Lanco	76	Subject to re- start of works
8	Rangit-II 2x33= 66 MW	U-1 to U-2	Sikkim/ Sikkim Hydro Power Ltd.	66	Subject to re- start of works
9	Bhasmey 2x25.5= 51 MW	U-1 to U-2	Sikkim/ Gati Infrastructure	51	Subject to re- start of works
10	Tangnu Romai- I 2x22= 44 MW	U-1 to U-2	Himachal Pradesh/ Tangu Romai Power Generation	44	Subject to re- start of works
			Sub- total (Private):	477	
Total (CS+SS+PS)				2517	

Chapter- 2.2(e)

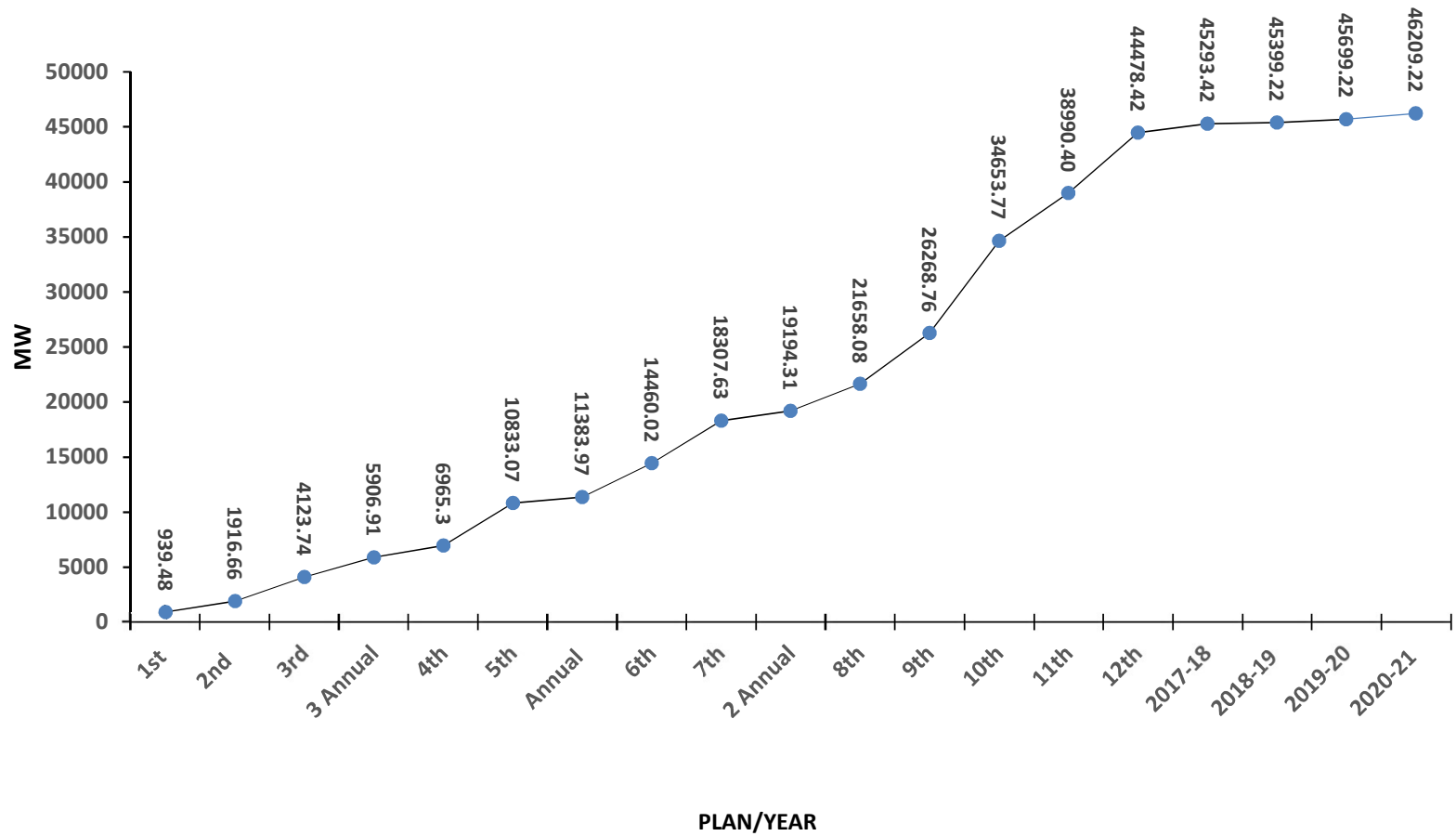
FY: 2025-26

**List of under construction Hydro projects
(above 25 MW & excluding Projects under ministry of New & Energy)**

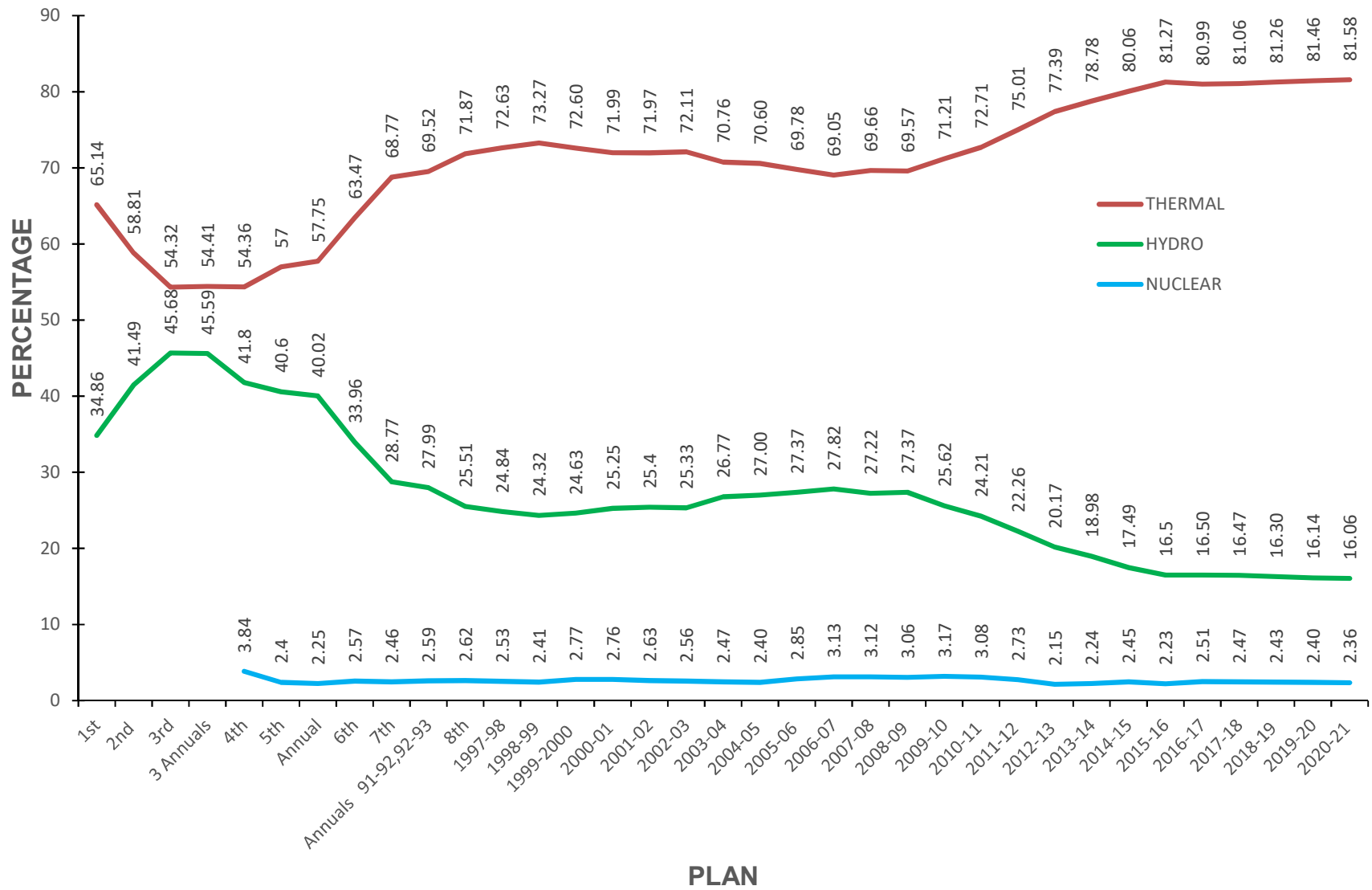
Sl. No.	Name of Project	Unit No.	State/ Implem. Agency	Capacity (MW)	Remarks
A	Central Sector				
1	Ratle 4x205+1x30= 850 MW	U-1 to U-5	Jammu & Kashmir/ NHPC	850	Subject to re-start of works
2	Lata Tapovan 3x57= 171 MW	U-1 to U-3	Uttarakhand/ NTPC	171	Subject to re-start of works
3	Pakal Dul 4x250= 1000 MW	U-1 to U-4	Jammu & Kashmir/ CVPPL	1000	
4	Luhri-I 2x80+2x25= 210MW	U-1 to U-4	Himachal Pradesh/ SJVN	210	
			Sub- total (Central):	2231	
B	State Sector				
5	Polavaram 12x80= 960 MW	U-9 to U-12	Andhra Pradesh/ Polavaram Project Authority	320	
6	Lower Kalnai 2x24= 48 MW	U-1 & U-2	Jammu & Kashmir/ JKSPDC	48	Subject to re-start of works
7	Koyna Left Bank PSS 2x40= 80 MW	U-1 to U-2	Maharashtra/ WRD, GO Mah.	80	Subject to re-start of works
			Sub- total (State):	448	
C	Private Sector				
8	Panan 4x75= 300 MW	U-1 to U-4	Sikkim/ Himgiri Hydro Energy Pvt. Ltd.	300	Subject to re-start of works
			Sub- total (Private):	300	
Total (CS+SS+PS)				2979	



Growth of Hydro capacity in MW



TREND OF CAPACITY ADDITION AS % OF TOTAL (Hydro Thermal Mix)



Chapter 5
Sanctioned Hydro Electric Projects for Construction
(Excluding projects under Ministry of New & Renewable Energy)

Sl. No.	Name of Scheme	State	I.C. (No. x MW)	Benefits (MW)	Date of Approval	Commissioned/ Commissioning
Central Sector						
1	Pakal Dul (CVPPL)	J&K	4x250	1000.00	28.10.14	2025-26
2	Parbati St. II (NHPC)	H.P.	4x200	800.00	11.09.02	2022-23
3	Tapovan Vishnugad (NTPC)	Uttarakhand	4x130	520.00	11/2006	2023-24
4	Subansiri Lower (NHPC)	Ar. Pr./Assam	8x250	2000.00	09.09.03	2023-24
5	Tehri PSS (THDC)	Uttarakhand	4x250	1000.00	18.07.06	2022-23
6	Lata Tapovan (NTPC)	Uttarakhand	3x57	171.00	17.07.12	2025-26*
7	Vishnugad Pipalkoti (THDC)	Uttarakhand	4x111	444.00	21.08.08	2023-24
8	Naitwar Mori (SJVN)	Uttarakhand	2x30	60.00	16.10.17	2022-23
9	Ramam-III (NTPC)	West Bengal	3x40	120.00	10.09.14	2022-23
10	Teesta St. VI (NHPC)	Sikkim	4x125	500.00	08.03.19	2023-24
11	Ratle (Ratle Hydro) #	J&K	4x205+1x30	850.00	19.12.12	2025-26*
12	Kiru (CVPPL)	J&K	4x156	624.00	08.03.19	2024-25
13	Rangit-IV (NHPC)	Sikkim	3x40	120.00	06.07.07	2024-25*
14	Luhri -I (SJVN)	H.P.	2x80+2x25	210.00	01.05.2018	2025-26
Sub- total (Central Sector) :				8419.00		
State Sector						
15	Parnai (JKSPDC)	J&K	3x12.5	37.50	21.10.13	2022-23
16	Lower Kalnai (JKSPDC)	J&K	2x24	48.00	16.08.13	2025-26*
17	Uhl-III (BVPCL)	H.P.	3x33.33	100.00	19.09.02	2022-23
18	Shongtom Karcham (HPPCL)	H.P.	3x150	450.00	16.08.12	2024-25
19	Vyasi (UJVNL)	Uttarakhand	2x60	120.00	25.10.11	2022-23
20	Shahpurkandi (PSPCL)	Punjab	3x33+3x33+1x8	206.00	04.05.11	2024-25
21	Koyna Left Bank (WRDMah)	Maharashtra	2x40	80.00	20.02.04	2025-26*
22	Indrasagar Polavaram (PPA)	Andhra Pradesh	12x80	960.00	25.02.09	2024-26*
23	Pallivasal (KSEB)	Kerala	2x30	60.00	Jan., 07	2021-22
24	Thottiyar (KSEB)	Kerala	1x30+1x10	40.00	05.06.08	2021-22
25	Kundah Pumped Storage-I (TANGENDCO)	Tamil Nadu	4x125	500.00	15.02.18	2023-24
Sub- total (State Sector) :				2601.50		
Private Sector						
26	Sorang (Himachal Sorang Power)	H.P.	2x50	100.00	09.06.06	2021-22
27	Tidong-I (Statkraft India Pvt. Ltd.)	H.P.	2x50	100.00	28.07.06	2022-23
28	Tangnu Romai- I (Tangu Romai Power Genreation.)	H.P.	2x22	44.00	30.11.07	2024-25*
29	Bajoli Holi (GMR)	H.P.	3x60	180.00	30.12.11	2021-22
30	Phata Byung (LANCO)	Uttarakhand	2x38	76.00	06.10.08	2024-25*
31	Maheshwar (SMHPCL) ##	M.P.	10x40	400.00	30.12.96	2023-24*
32	Bhasmey (GATI Infrastructure)	Sikkim	2x25.5	51.00	Dec-08	2024-25*
33	Rangit-II (Sikkim Hydro Power)	Sikkim	2x33	66.00	10.02.10	2024-25*
34	Rongnichu (Madhya Bharat Power)	Sikkim	2x56.5	113.00	01.10.08	2021-22
35	Panan (Himagiri Hydro Energy)	Sikkim	4x75	300.00	07.03.11	2025-26*
36	Kutehr (JSW Energy (Kutehr)Ltd.	H.P.	3x80	240.00	30.03.10	2024-25
Sub- total (Private Sector) :				1670.00		
Total - Under execution (as on 31.03.2021)				12690.50		
# Govt. of J&K, PDD have terminated PPA on 09.02.2017 and directed JKSPDC to take over the project. MoU between NHPC (51% share) & JKSPDC (49% share) signed for implementation of project in JV mode on 03.02.2019.						
## PFC as lead lender have acquired majority equity i.e. 51% in the SMHPCL w.e.f. 1st June, 2016. Matter Sub-judice.						
*Stalled Projects Commissioning subject to Re-Start of works.						

Chapter 6

Status of Under Execution Hydro Electric Projects (above 25 MW) in the Country

Sl. No.	Name of Project Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores.	State Comm. Sch. (original/ Now Ant.	Broad Present Status / Critical Area	Remarks/ Critical issues
A	Central Sector			
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: <u>Original:3919.59</u> Latest: 9897.59 (04/20 PL) Contractors Civil : Gammon / Valecha HM : Om Metals E&M : BHEL	<u>H.P.</u> <u>2009-10</u> <u>2022-23</u> (July'22)	All major works related to commissioning of the project completed except HRT. Head Race Tunnel -Excavation: 29.04 km out of 31.5km completed Total Overt lining: 27.40 km lining out of 31.5km completed. E&M Works: All units have been synchronized with grid at part load using water from Jiwa Nallah.	- Poor geology in HRT especially in Face-4 (TBM-Face).
2	Tapovan Vishnugad 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 Latest: 5867.38 Contractors Civil : Rithwik/L&T / Patel HM : Om Metals E&M : BHEL	<u>Uttara</u> <u>khand</u> <u>2012-13</u> <u>2023-24</u> Dec.'23)	Barrage: Excavation Completed and Concreting 127628 cum out of 129358 cum completed. HRT: Excavation of 2.79 km out of 3.81 km by DBM & 5.50km out of 8.27km by TBM completed. 6.61 km concrete lining out of 12.09km completed PH Cavern: Excavation and concreting completed. Desilting Chamber & Intake: Excavation and concreting completed. TRT: Excavation and lining completed. Surge shaft: Excavation & Lining completed. Penstock: Excavation and Lining completed. E&M works: Pit liner erection on all 4 units completed. Turbine housing erection of all 4 units completed. Unit #1: Boxed up. Unit #2: Boxed up. Unit #3: Turbine erection completed. Unit #4: Turbine erection in progress. Bus Duct: Erection of all units completed Critical : HRT On 07.02.2021, there was a sudden flash flood in Dhauli Ganga river due to an avalanche resulting in part damage to NTPC hydro power plant. A detailed analysis is to be done to assess the extent of physical and financial damage to the project. A team of Expert(TOE) from CWC, CEA, GSI, CSMRS and NTPC have been constituted for preparing action plan for restoration of project.	- Completion of HRT. - Associated Transmission system -Due to flash flood in Dhauli ganga River on 07 Feb 2021, construction work is held up.
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	<u>Uttara</u> <u>khand</u> <u>2010-11</u> <u>2022-23</u> (Dec'22)	Upstream (Tehri Dam) and Downstream (Koteshwar Dam), intake and Head Race Tunnels (2 Nos.) already completed alongwith Tehri Stage-I works. Surge Shafts Upstream (2 nos- 140m): Excavation, Mucking & Rock bolt, Lattice Girder Support work in Progress. Surge Shafts Downstream (2 Nos): Excavation, Mucking & Rock Bolt, Lattice Girder Support work in progress. Butterfly Valve Chamber (BVC 78x10x26m): Excavation of all 10 bench completed.	- Poor Geology in under ground works of BVC, PAC, TRT, PH Cavern etc. - Slow progress of works - Cash flow crisis with M/s. HCC.

Sl. No.	Name of Project Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores.	State Comm. Sch. (original/ Now Ant.	Broad Present Status / Critical Area	Remarks/ Critical issues
	TRT: 2, Dia 9m and Length 1070m & 1160m Turbine: VF reversible pump turbine Cost: <u>Original: 1657.60</u> Latest: 4835.60 (02/2019 PL) Contractors Turnkey : Alstom, France/ HCC		Penstock Assembly Chamber (PAC): Crown slashing with steel ribs completed. Excavation of all 7 bench completed. Power House: Excavation completed. TRT-3(1151 RM): Excavation in Heading 979.5 RM, Benching 722.5 RM, Invert Lining-217.9m, Overt Lining 139.3m completed TRT-4 (1255 RM): Excavation in Heading-1028.4 RM, Benching-920.5 RM, Invert Lining-354m & Overt Lining: 301m completed. E&M Works: Manufacturing & supplies are in progress. ELECTRO-MECHANICAL/ HYDRO- MECHANICAL WORKS: EM-HM Supplies: Equipment/Material worth 434.08 Cr Plus 80.61million Euro (approx. INR 952.52Cr.) reached at Site. EM Erection / fabrication: Both EOT crane have been commissioned in service bay. Erection work of GIS & GIB line is completed. Erection of control panels for Units and lines is completed. Laying of control cables for Units and lines placed in position (GIS & GIB). Installation of earth mat in power house cable gallery, Service bay and upto 4 th floor of control room building has been completed. HM Fabrication works: Fabrication of ferrules of Penstock Steel liner including bend & curved pieces has been completed. In lower Penstock # 6, so far 18 nos. steel liner have been erected and backfill concrete for 12 nos. have also been completed. In lower Penstock # 7, also 08 Nos. steel liner have been erected.	
4	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: <u>Original: 1527.00</u> Latest: 1801.07 Contractors Civil & HM : L&T E&M : BHEL	<u>Uttara khand</u> <u>2017-18</u> 2025-26 (Subject to re-start of works)	Infrastructure works are almost completed. Main works to re-start after clearances from Hon'ble Supreme Court. EPC contract for Civil & HM works awarded to M/s L&T on 17-08-2012. E&M package awarded to M/s BHEL on 07.12.12. MoWR vide letter dated 24.01.2019 to MoEF has communicated that only 7 out of 51 Hydro Projects which are under various stages of construction in Uttarakhand has been recommended for implementation. Lata Tapovan project is not included in the 7 recommended projects. ➤ Barrage (29 m high) ➤ Desilting chamber (135 m L x 33m W x 17.5 m H) ➤ HRT (4.7 m diameter, 7.51 km long) ➤ Surge Shaft (7 m diameter 144.8 m height) ➤ Pressure Shaft (3no. 2.0 m diameter 297 m long) ➤ Power House (85mx 17mx 40.5m) On 08.07.2020, Director /Conservator forest NDNP, submitted report to Chief Conservator forest Dehradun for LTHEPP mentioning that as per revised notification, project is out of ESZ boundaries.	-Works of barrage & HRT yet to start due to protest by villagers. -Construction work stopped vide Hon'ble Supreme Court order dated 7.5.14. Clearance from Hon'ble Supreme Court for resumption of works.
5	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: <u>Original: 2491.58</u> Latest: 3860.35 (02/2019 PL) Contractors Civil & HM : HCC E&M : BHEL	<u>Uttara khand</u> <u>2013-14</u> 2023-24 (Dec. '23)	River diverted on 02.04.2018. Concreting of U/S coffer dam has been completed. TBM has been commissioned on 24.11.19. Main Access Tunnel (MAT) 413.50m: Excavation completed upto 397.50m. HRT (13400m): 644m completed by DBM. Construction of Adits and infrastructure works are under progress Desilting Chambers (3 No. X 390m) : Crown Slashing completed in DC #2 & DC #3 and Benching is under progress in DC #1, DC #2 and DC#3. Upstream Surge Shaft: 129 RM out of 325.5 RM excavation from bottom adit to Upstream Surge Shaft has been completed. Downstream Surge Shaft : 337.17 RM out of 352 RM excavation from adit to Downstream Surge Tank bottom has been completed. Electro - Mechanical works: Design and Engineering is in progress. Model testing of Turbine has been successfully completed in BHEL, Bhopal on 01.08.2015.	-Frequent disruption of works by local people. - Slow progress of works - Cash flow crisis with M/s. HCC.

Sl. No.	Name of Project Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores.	State Comm. Sch. (original/ Now Ant.	Broad Present Status / Critical Area	Remarks/ Critical issues
			Civil works and Hydro-Mechanical works: Civil & HM works awarded to M/s HCC Ltd. and agreement has been signed on 17.1.2014 amounting to Rs.1597 Cr.(appx.)	
6	Subansiri Lower NHPC 09.09.2003 8x250= 2000 MW (1000 MW in 12 th 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: <u>Original: 6285.33</u> Latest: 20368.9 (01/20 PL) Contractors Civil : BGS-SGS-Soma JV HM : Texmaco E&M : Alstom	Arunachal <u>Pradesh</u> Assam <u>2009-11</u> 2023-24 (Aug'23)	Dam :- Dam concreting 12.54 lac Cum (60.56%) out of 20.70 lac Cum & Intake concreting 269904cum (97%) out of 279454cum completed. HRT:- 6948m (98%) out of 7102m heading excavation, 5275m (74.27%) out of 7102m benching excavation & 4087m (57.54%) out of 7102m concrete overt lining completed. Surge Tunnel :- Heading excavation 3063m (85.64%) & benching excavation 416m (12%) out of 3545m completed. Pressure Shaft :- Out of total 1594m, 293m pressure shaft steel liner erected. . Power House :- Excavation completed & concreting 36.22%completed. E&M Works:- Concreting of Generator Barrel of Unit#1 and 2 already completed. Unit-1: Turbine Stay Ring and Spiral Case erection completed. Unit-2: Turbine Stay Ring and Spiral Case erection completed. Unit-3: Erection of Draft Tube (part 2 to 6) of Unit#3 already completed. HM Works: Erection of 3 nos. of Diversion Tunnel Gates (gate No. 3,4& 5) completed out of 5 nos. Erection of Intake Gates: Intake Service Gate no. 5, 6, 7 & 8 have been erected. Erection of Rope Drum Hoist (RDH) is in progress.. All work except safety works were stalled from December, 2011 to September, 2019 due to agitation launched by various activists against construction of Subansiri Lower HE Project and as per directions of NGT. Works restarted w.e.f. 15.10. 2019 after clearance from NGT. However, work initially remained suspended w.e.f. 24.03.2020 to 20.04.2020 due to COVID -19 lockdown and further got affected due to Monsoon Period from May 2020. Left Bank approach road to dam got damaged due to slope failure at left bank on 26.05.2020. Also, a part of coffer wall of powerhouse got collapsed on 22.07.2020 resulting in flooding of powerhouse and disruption of right bank road to dam. An alternate approach to left bank of dam by extension of existing road tunnel and Deo-Nallah slope protection work is in progress. Restoration of approach road to right bank of Dam near Power House is also being done. Power House Civil works package has been awarded to M/s Patel Engineering Ltd on 01.09.2020.	
7	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-shaped. PH- Under ground Turbine- Francis Cost: Original: 3283.08	<u>Sikkim</u> <u>2012-13</u> 2023-24 (Mar'24)	Barrage and Desilting: Excavation completed & concreting 98% of 380003 cum completed. HRT: Heading excavation 10650m and benching excavation 4270 m out of total 27505 m completed. Overt lining 1550 m completed. Surge Tank: Excavation completed & concreting under progress. Pressure Shaft: Underground excavation of 4 no. pressure shaft completed, lining of one no. pressure shaft completed, balance lining under progress. HM works: 2 nos. radial gates erection in bay 1&2 completed. Erection of 1 st stage embedded parts of radial gates in bay 3&4 under progress. Power House: Excavation completed & conc. 21945 / 44578 cum completed. Concreting to Draft Tube Liners for all the 4 nos. Units completed. Erection of spiral casing of Unit #1 completed.	- Works stalled since April, 2014 due to financial crunch with the earlier developer LTHPL. - Accordingly, the Corporate Insolvency Resolution Process (CIRP) was initiated vide order dated 16.03.2018 of Hon'ble NCLT, Hyderabad Bench. In the Bidding process, NHPC emerged as successful bidder for acquisition of LTHPL.

Sl. No.	Name of Project Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores.	State Comm. Sch. (original/ Now Ant.	Broad Present Status / Critical Area	Remarks/ Critical issues
	Latest : 5748.04 (07/2018 PL) Contractors Civil : JAL & Gammon E&M : Alstom		Transformer Cavern: Excavation completed & concreting 2539/7101 cum completed. TRT: Excavation & Lining almost completed. Regarding, tendering, LOT-I (Civil works of Barrage, Desilting Basins, SFT, Intake, Part of HRT-I & HRT-II and other associated structure) awarded to M/s. Jaypee Associate Ltd on 31.03.2020 and LOT-II (Civil works of Part of HRT-I & HRT-II, Surge shaft, Pressure shaft, Powerhouse, TRT & other associated structure) awarded to M/s. Gammon Engineers on 15.03.2020. HM works awarded on 27.10.2020 and E&M works are under tender evaluation. The Consideration Amount of Rs. 897.50 Crore released by NHPC on dated 09.10.2019 and Taking over along with all assets and documents as 'Going concern' completed on 09.10.2019.	Subsequently, the investment proposal for an estimated cost of Rs 5748.04 crore (Jul'18 PL), which includes Bid amount of Rs 907 crore for acquisition of LTHPL; was approved by the CCEA on 08.03.2019 for investment, acquisition of M/s LTHPL and execution of balance works of Teesta-VI HE Project by NHPC. Taking over along with all assets and documents as 'Going concern' completed on 09.10.2019.
8	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 Civil & HM : Simplex-Apex JV / Sew E&M : BHEL	<u>West Bengal</u> <u>2019-20</u> <u>2022-23</u> (Nov,22)	First stage river diversion done on 23.03.2016. First phase Barrage excavation completed and Raft concreting in progress. Intake structure 1 & 2: Excavation completed, SFT excavation 20% completed. HRT excavation 7% completed. Excavation of Desilting chamber completed. Surge Shaft: Excavation completed. Pressure Shaft: Excavation 50% completed Power House: Excavation 94% completed. TRC: Excavation and concreting completed Switchyard : Excavation and filling completed	Works under standstill w.e.f. 01.07.2019 due to poor financial condition of M/s Simplex and M/s SEW and non-availability of raw material. PPA with beneficiaries yet to be signed. State Government is not ready to finalize power evacuation line in absence of PPA. Resolution of forest land issue in Road from Township to Surge Shaft by Forest Department (GoWB).
9	Naitwar Mori SJVN Limited 16.10.2017 2x30=60 MW Broad Features : Barrage: 30.5m height HRT: 5.6m horse shoe, 4330m long Pressure shaft: 4m dia, 109m long Surge shaft: 18m dia, 51.65m height Cost : Original: 648.33 Latest : 648.33 Contractors Civil : JP Associates HM : GMW E&M : Voith	<u>Uttarakhand</u> <u>2021-22</u> <u>2022-23</u> (Jun,22)	River Diverted on 31.01.2019 Desilting Tank: Excavation completed and concreting 22284 cum out of 59000cum completed. Barrage: 1,37,875 cum out of 1,40,000 cum excavation completed and concreting 23984 cum cum out of 47700cum. HRT: Excavation 4223 m out of 4317m completed. Lining: 570 m (13.2%) concreting done out of 4317 m. Surge Shaft : 425 5 cum out of 15700 cum excavation completed. Power House & Transformer Hall: Excavation of Power Hose cavern 53185 cum out of 54250 cum completed. TRT: Heading excavation completed. Benching excavation 80 m (43%) completed out of 188 m. HM works : LoA issued to M/s GMW Private Ltd. on 18.04.18. E&M works : Works awarded to M/s. Voith Hydro Pvt. Ltd. On 11.06.2018. Embedded part of EOT crane installed. Erection of Draft Tube liner in Unit-1 & Unit-2 started on 05.12.2020 and work is under progress.	- Powerhouse & Barrage works critical. - Associated Transmission system
10	Pakal Dul CVPPL 03.10.2006 4x250 = 1000 MW Broad Features :	<u>J&K</u> <u>2020-21</u> <u>2025-26</u> (July.'25)	Infrastructural works: Excavation of MAT and adit to Powerhouse completed. Dam: Letter of Acceptance issued to M/s Jaiprakash Associates on 21.06.18. 457 m excavation of access adit to HRT-I have been	The work at Dam site and Power house site of the project partially restored after lockdown with limited Manpower after obtaining

Sl. No.	Name of Project Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores.	State Comm. Sch. (original/ Now Ant.	Broad Present Status / Critical Area	Remarks/ Critical issues
	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 E&M : Voith Hydro Ltd		completed out of a total of 698.2m. 264.5m excavation of HRT 2(towards intake) have been completed out of a total of 538.2m. Surge Shaft: Access road to Surge shaft top completed on 30.11.18. Pressure Shaft: Excavation from adit to Pressure shaft bottom has been completed . Power House(157mx20.20mx49m): Letter of Acceptance issued to M/s. AFCON-JP Associates JV on 21.02.18. Excavation of MAT completed on 20.12.18 E&M Package: Letter of Award issued to M/s. Voith Hydro Ltd. On 02.01.2019. Turbine Model testing is completed. Detailed Engineering of E&M equipments, layout plan and equipment manufacturing is in progress. HM Works Package: Letter of Award issued to M/s. PES Engineers Pvt. Ltd. on 26.08.2019. Detailed Engineering of HM components is in progress. HRT-TBM package: LoA issued to M/s L&T Ltd. On 3.7.2020. Contract agreement signed on 14.08.2020. Survey and infrastructure works are in progress. Transformer Hall: Excavation of adit to transformer hall from adit to PH CROWN completed on 31.3.2019.	the permission from District Administration.
11	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 2024-25 (Aug. '24)	Civil, HM and E&M works awarded on 24.02.2020. Construction of approach roads for Dam top(215m), DT inlet (1.6 KM) and outlet (1.2 Km) completed.	Construction works of the project have been delayed in view of the lockdown ordered w.e.f.23.3.2020.
12	Ratle Ratle Hydro Electric Project Pvt. Ltd. / NHPC 19.12.2012 4x205+1x30= 850 MW Broad Features : Dam Height-133m Length-194.8m Spillway-Radia Gate-(5) Size-10.75x1420 m Diversion Tunnel:2 Nos., Circular (Right back) Pressure Tunnel:11m dia each. Pressure Shaft : 6.6 m each steel lined. P.House-Underground Turbine- Francis	J&K 2017-18 2025-26 (Subject to re-start of works)	EPC Contract for Civil & HM works awarded to M/s GVK Projects & Technical Services Limited on 04.07.2013. Excavation of DT1 (298m out of 472m) & DT2 (192m out of 552m) completed. -Project was stalled since 11.07.2014 due 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 already have been done. There is no progress since 11th July, 2014. JV of Govt. of UT of J&K and NHPC has been formed. CCEA clearance received. Award of works is to be done.	- Award of works is to be done.

Sl. No.	Name of Project Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores.	State Comm. Sch. (original/ Now Ant.	Broad Present Status / Critical Area	Remarks/ Critical issues
	Average Gross Head- 100.39m Addl. Unit(30MW) Housed in Main P.H. Cavity) Rated Head-98.9m Cost : <u>Original: 5281.94</u> Latest 5281.94 (11/2018 PL) Contractors Civil & HM : GVK E&M : Alstom			
13	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 : 1692.60 Contractors Civil : Coastal HM : Texmacho E&M : Andritz	<u>Sikkim</u> <u>2011-12</u> <u>2024-25</u> (Subject to re-start of works)	Dam & Intake works: Excavation 409184 / 492775 cum completed and concreting 61045 cum out of 173229 cum completed. Excavation of road diversion tunnel has been completed. HRT: Excavation in progress and 3794 m out of 6488 m completed. Surge Shaft: Excavation has been completed & concreting yet to start. Pressure Shaft: Excavation of Horizontal Pressure Shaft completed. Vertical Pressure Shaft 60.5 m out of 84.7m completed. Power House: Excavation in Power House completed. Concreting 8565 cum out of 19900 cum completed. Desilting chamber: Excavation 2143 m out of 3360 m completed. In the Joint Lenders Forum meet held in PFC on 5 th April, 18, Lenders decided to file application in NCLAT and the same has been filed on 24 th April, 18. Last hearing of NCLT held on 29.03.2019 and order pronounced on 9.04.2019. As per the order IRP has been appointed. The project is under NCLT process since 9th April, 2019. NHPC submitted EOI on 08.07.2019 and was shortlisted under final list of Prospective Resolution Applicants on dated 23.08.2019. The Resolution Plan submitted by NHPC on 04.12.2019. The Resolution Plan Approval Application was listed for hearing on 17.02.2020 before NCLT, Hyderabad ("Tribunal"). Final hearing was held on 31.07.2020. Investment approval for acquisition of M/s Jal Power Corporation Ltd. and construction of balance works of Rangit-IV by NHPC was conveyed to NHPC by MoP on 30.03.2021. The project has been awarded to NHPC. Award of works is under process.	Financial crunch with the developer. Project was stalled since October, 2013 due to funds constraints with the developer.
14	Luhri Stage-1 SJVN Ltd. 01.05.2018 2x80+2x25=210 MW Broad Features: Dam: 86 m high HRT: 9m dia 38 km length Power House:Underground Turbine: Francis Contractor : Civil: Luhri Hydro Power Consortium	<u>Himachal Pradesh</u> <u>2025-26</u> <u>2025-26</u> <u>(Jan'26)</u>	Work awarded to M/s Luhri Hydro Power Consortium. Contract Agreement signed on 22.12.2020. Mobilization is in progress.	
B	State Sector			
15	Parnai JKSPDC 21.10.2013 3x12.5= 37.5 MW Broad Features:	<u>J&K</u> <u>2017-18</u> <u>2022-23</u> (Mar,23)	The implementation of the project has been undertaken by awarding the EPC contract in favour of M/s. Patel Engg. Ltd. in 2013. Barrage:- Excavation 35302 cum out of total 46364 cum completed. Concreting 22234 cum out of 34589 cum completed. HRT (D-shaped, 3.2m diameter, 9.236km long):- 4993.5m out	- Slow progress of works - Contractual Issues.

Sl. No.	Name of Project Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores.	State Comm. Sch. (original/ Now Ant.	Broad Present Status / Critical Area	Remarks/ Critical issues
	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		of 9236m excavation completed. Pressure shaft (1no. 2mdia, 1733mlong): Excavation 14823 cum out of total 34560 cum completed. 536 cum out of 7212 cum concreting has been completed. Surge shaft (3.2m dia.) : Excavation: 704cum out of 14000cum completed. Power house: excavation 20550 Cum excavation out of 60000 Cum has been completed.	
16	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	<u>J&K</u> <u>2017-18</u> 2025-26 (Subject to re-start of works)	EPC contract awarded to M/s. CPL in Sept., 2013. Diversion tunnel has been completed and river diversion made on 30.11.2016. Work on coffer dams has been started Dam:- Excavation work completed for right abutment of the dam bridge. Excavation of left abutment completed upto 50%. HRT:- Adit excavation is in progress. . 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 re-tendering for selection of EPC contractor is under process.	- Project stalled - Re-award of works
17	Shahpurkandi Irrigation Deptt. & PSPCL 04.05.2011 3x33+3x33+1x8=206 MW Cost: Original: 1835.50 Latest 1938.74 (Power Component) Contractors Civil & HM : Soma – BUREYA JV E&M : BHEL	<u>Punjab</u> <u>2015-16</u> 2024-25 (Dec.24)	Main Dam: 13.62 lacs cum Excavation out of 18.40 lacs cum and 4.93 lacs cum concreting out of 11.05 lacs cum completed. Hydel Channel: Excavation / concreting is in advance stage of completion. Works of Dam stopped since 29.08.2014 due to inter-state dispute between states of J&K & Punjab on sharing of waters of river Ravi & tariff. An agreement was signed on 8.9.2018 between Chief Secretary, Govt. of Jammu & Kashmir and Chief Secretary, Govt. of Punjab. The Punjab Cabinet ratified the above agreement. Zero date of the project is 1st November, 2018. NIT for Civil works of Power House is being floated and award of works is expected soon. E&M contract work earlier accorded to BHEL has been revived, Project is programmed for Commission by Dec,2024.	- Power House civil works to be awarded.
18	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 57m Penstock- 3.4m x 1860m P.House- Surface Turbine- V. Francis Cost: Original: 431.56 Latest: 1281.52 Contractors Civil : Continental / Abir HM : PES E&M : BHEL	<u>H.P.</u> <u>2006-07</u> 2022-23 (Dec'22)	All works completed in July, 2018. During Hydro Static pressure Test (HST) of Penstock, some leakage was observed. Repair of penstock & HST completed by March, 2020. On 17.05.2020 after Trial run of Unit-1, during synchronisation to grid transmission load rejection was done but the penstock ruptured along penstock ferrule # 345 which is about 110m upstream of surface power house. The restoration of the Penstock by replacing/recladding the SAILMA 550HI steel and that of power House is under progress.	

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19	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	<u>H.P.</u> 2016-17 2024-25 (Mar'25)	River Diversion achieved on 10.02.2017. Barrage: Downstream Coffor Dam completed. Upstream Coffor Dam 84% completed. HRT: Heading excavation 6862 m out of 7712.7m completed. Benching excavation 2302 m completed Surge shaft: excavation 37% completed. Power House: 98% excavation of Power House completed. Works hampered in some portion of HRT due to re-location of Army ammunition depot. Issue is under resolution between Army, GoHP & HPPCL.	-Issues with Army authorities for shifting of ammunition depot. - Slow progress of works
20	Vyasi UJVNL 25.10.2011 (TEC) 2x60= 120 MW Broad Features: Dam: Conc. Gravity H- 86m L-207.2m HRT- Circular, 7m dia, 2.7Km long. Power House- Surface Turbine- VF. Switchyard: 220 Kv. Cost: Original: 936.23 Latest: 1581.01 Contractors Civil : Gammon / MPCC E&M : BHEL	<u>Uttarakhand</u> 2014-15 2022-23 (April,22)	Civil Works: Dam : Excavation completed. 3.85 Lakh cum out of 3.89 lakh cum of Concreting completed. Diversion Channel : Completed. Head Race Tunnel (2.7 Km): Excavation works completed. Both overt and invert lining has been completed. Pressure Shaft: Excavation works of pressure shafts completed. 360 m concreting out of 374m completed Surge Shaft : Excavation has been completed (100% done). 7600 cum out of 7600 cum concreting has been completed. Power House: Excavation works and concreting of substructure completed. Concreting of super structure is 80% completed . Erection of Draft Tube in both the units completed.	-Dam and E&M works are Critical.
21	Koyna Left Bank PSS WRD, Mah. 20.02.2004 2x40 = 80 MW Broad Features: Water from the existing Shivaji Sagar 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 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 : Litostroj Slovenia & Koncar, Croatia	<u>Maha rashtra</u> 2014-15 2025-26 (Subject to re-start of works)	Civil Works: Excavation of intake structure 4781 cum out of 14105 cum and lining 2485 cum out of 3381 cum completed. Excavation of Switchyard completed. Excavation of Approach tunnel & Ventilation tunnel is in progress. Tail surge shaft : Excavation in soft strata completed. Excavation for inclined / vertical / lateral shafts in hard rock 6448 / 9223 cum completed. TRT : 364 / 24003 cum excavation completed. Machine Hall : Underground Excavation is under progress. 22600 cum excavation out of 55050 cum completed. E&M works: The contract for details engineering manufacturing supply, supervision erection, testing commissioning and putting into commercial use of pump turbine, generator motor and associated equipments is signed with M/s IVRCL Ltd., Pune on 16.12.2010. Further TG set has been ordered as under: Turbine/Pump: M/s Litosroj Power, Slovenia (European Union) Generator/Motor: M/s Koncar Power, Plant & Electric Traction Engineering, Croatia (European Union). EOT Crane :- Works awarded to M/s Pedvak Cranes Private Limited Hyderabad on 12.04.2013.	-Slow progress of works. -Funds constraints due to increase in Project cost. RCE under approval. - Contractual Issues - The proposal to construct the project on BOT basis had been sent to State Govt., as no response has been received from State Govt., WRD is planning to take up the project after availability of funds. The project works are stalled since March, 2015.

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22	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: <u>Original: 4956.39</u> Latest: 5338.95 (Power Component) Contractors Civil : Navyug HM : PES E&M : GE	Andhra Pradesh 2017-18 2024-26 (Subject to re-start of works)	A) Spillway, Earth cum Rockfill Dam, Power House Foundations Works awarded in March, 2013 to M/s. Transtroy- JSC EC UES JV. ECRF DAM: Earth work of 508.06 L.Cum /833.169L.Cum is completed. Diaphragm Wall concreting – completed. SPILLWAY: Excavation-838.80 L Cum out of 1115.59 L Cum completed. Concreting 9.60 L Cum out of 36.79 L cum completed. Gates: Radial Gate fabrication – 11010 MT completed out of 18000 MT (61.17%). Power House: Earth work of 112.20 L Cum / 114 L.Cum is completed & embankment of 9.79 L.Cum / 10 L.Cum is completed. 'Works stalled since 19.07.2019 as APGENCO asked contractor M/s 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 on 14.12.2020. Final Contract concluded with new contractor M/s MEIL for execution of PHEP works on 30.03. 2021.. Works are yet to be started.	-commencement of works
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 Turbine: Pelton S. Yard: 220kV – Single bus Cost: Original: <u>222.00</u> 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- SSIPCV, M/s. Shri Sarvasana Industries Pvt. Ltd.	Kerala 2010-11 2021-22 (Dec,21)	Intake structure: Excavation completed. Leading channel of Water conductor system replaced by cut & cover/soil tunnel and accordingly intake is shifted. HRT: Excavation –3388/3347 m completed. Overt conc. 1675/3347 m completed. Invert Conc.. – 1675/3347 m completed. SurgeTank / Forebay: Excavation completed. Concreting.423/843 m ³ completed. Pressure Shaft: Excavation completed. Fabrication of steel liner completed and erection of 850/1096 m completed. Surface penstock: Excavation –111300/122600 m ³ . Concreting-122800/12850 m ³ and 1921m out of 2036m erection completed. Power House: Excavation & Concreting completed. Tail race Channel (2 Nos.): Excavation & lining completed. E&M Works: 75% supply completed, balance of E&M works – Tendering finalized. The overall progress achieved :- 86.36%.	- Poor Geology - Contractual Issues Contract for Civil &HM works has been terminated w.e.f. 13.09.18. Balance work has been re-tendered on the risk & cost of Contract, Subsequently balance works have been awarded to M/s. Sri Sarvasna Industries Pvt. Ltd. and M/s. DSE Anchor Structure. Tender for Erection of Supplied Electro Hydro Mechanical Equipment & Supply and Erection of BoP equipment is under progress.
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: <u>Original: 136.79</u>	Kerala 2012-13 2021-22 (Dec'21)	Civil Works: Weir: 4506 m3 excavation out of 10208 m3 & 6362.59 m3 concreting out of 10928 m3 completed. Approach Channel & Intake: 3909.00 m3 excavation out of 9584 m3. done. Power Tunnel: Excavation completed & Concreting 272.00 m3 Out of 615 m3 completed. Steel line fabrication 22.5 MT and erection 3 MT out of 27 MT completed. Penstock, Anchor, Rocker support: - Excavation 32391 m3 out of 37839.37 m3, concreting 4398 m3 out of 12082 m3 completed, Fabrication of penstock 1804 MT out of 2286.32MT completed and erection 401 out of 2341 MT completed.	-Original contract for Civil & HM works foreclosed without risk & cost of Contractor M/s. Coastal Project Ltd. -Civil & HM works re-awarded to M/s PRIL-Sri Sarvasna Industries Pvt. Ltd. on 05.01.2018. KSEB decided to execute E&M works departmentally

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	Latest: 280 Contractors Civil & HM : PRIL- Sri Sarvana Industries		Power House, switchyard & allied works: 39258/43690 m3 excavation and 7845 /16209 m3 concreting completed. E&M Works: Tender for erection of supplied Electro/ Hydro Mechanical equipment for power house was awarded to M/s Fitwell. Work commenced on 10.07.2020 and at present 28% work have been completed. Over all Progress of the project is around 66% and it is expected that the project can be commissioned by Dec 21.	& tendering was awarded to M/s Fitwell.
25	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 Race Tunnel: Ø 8.5mx895m Turbine: Francis reversible turbine. Cost: Original: 1216.59 Latest: 1831.29 Contractors Civil & HM : Patel / Kundah PSP E&M: MEIL	Tamil Nadu <u>2022-23</u> 2023-24 (May'23)	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. HRT: Excavation 935 m. out of a total 1247 m. have been completed. Pressure Shaft: Excavation 640m out of total a length 926 m completed. Surge Shaft: Surface excavation 55.70 m depth out of 68 m completed. Power House: Slashing completed, Benching 16m level out of total 48m level completed. Transformer cavern: slashing completed, benching 9. m level out of total 18.5 m level completed. Tail Race Surge Chamber: - Benching 70% completed. TRT: Excavation 869m out of 895 completed. E&M Works: - Phase-I, Package –III, 1st unit of 125 MW and Phase-II (2x125MW) & Phase –III (1x125 MW) Supply, erection, testing & commissioning works awarded to M/s Megha Engineering & Infrastructure Ltd. on 28.11.2019. Preliminary planning and Engineering works are under progress	Environmental clearance validity expired on 07.05.2020. MoEF &CC issued TOR for Project works at site for a period of 6 Months from date of issue of TOR or grant of new E.C. Action is being taken to obtained fresh E.C
C	Private Sector			
26	Sorang Himachal Sorang Power corporation Ltd. June, 2006/ 2x50= 100 MW Broad Features: HRT- 1.5 km Trench Weir-59 m P.House- underground Turbine- Pelton Gross Head-626 m SWYD- 11/400 kV (GIS) Cost: Original: 586.00 Latest: 586.00 Contractors Civil & HM : NCC – Maytas – SS JV E&M : Voith Siemens	H.P. <u>2011-12</u> 2021-22 (Jun-21)	All Civil Works completed. Both the units are boxed up. During the filling of water conductor system in 1 st week of Nov., 2013, leakage occurred in penstock due to cracks. Rectification work completed in April, 2015. Unit #1 synchronized with grid on 30.10.2015, however, could not be commissioned due to non-availability of rated discharge. On 18-11-2015 when Unit # 2 was under trial run, there was rupture in the surface penstock pipe. The incidence caused loss of lives and property. The rectification work is under progress. Land acquisition for new alignment of Penstock & other infrastructure is completed. Fabrication of Ferrules under progress.	- Repair of penstock work -Arrangement of funds to carry out repair works.
27	Tangnu Romai-I M/s Tangnu Romai Power generation 2x22= 44 MW 30.11.2007 (TEC by HPSEB)	H.P. <u>2014-15</u> 2024-25 (Subject to re-start of	Civil works awarded on 14.06.2010 to M/s Sai Urja Hydel Project (P) Ltd. Barrage and Diversion Cannel: 26211 cum out of 93800 cum excavation completed. Desilting Chambers & SFTPC: Excavation completed. SFT excavation 420 / 450.66 m completed.	- Slow progress of works HRT critical, poor geology. - Works are stalled due to finance issues since Jan, 2015.

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	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: <u>Original:</u> 255.00 <u>Latest:</u> 641.89 Contractors Civil & HM : Sai Urja E&M : Andritz	works)	HRT: 2826m out of 6300m excavation completed. Power House, Switchyard & Misc.: 60275 m ³ out of 72000 m ³ excavation completed. In February-2015, due to land slide the steel bridge on Pabbar River, connecting Project components has been completely damaged. The restoration works are completed.	- Developer have initiated the sale of the Project and are in the process of negotiating with Potential Buyers.
28	Bajoli Holi M/s GMR Bajoli Holi Hydro Power Pvt. Limited 31.12.2011 3x60= 180 MW Broad Features Dam Height-66 M Dam Length-178 M Desilting Chamber- 2 Nos. 240 Mx14.5 MX 10.8 M HRT- Length-15.538 Km., 5.6 M dia P.H. –Surface Cost: <u>Original</u> 1696.93 <u>Latest</u> 2689.00 Contractors Civil & HM : Gammon E&M : Alstom/ GE	<u>H.P.</u> 2018-19 2021-22 (June,21)	Civil Works: 94.65% works completed. Dam: Excavation completed. Concreting 98.5% completed. HRT: Excavation and lining completed. Surge Shaft: Excavation and Lining completed. Pressure shaft: Excavation completed. Lining-1976MT / 2440MT completed. Power house: Excavation completed and concreting almost completed. HM Works: 87% works completed. E&M Works: 90% works completed.	-Slow progress of works -Poor approach roads -Power evacuation system is critical. - Due to excessive snowfall on 6 th & 7 th Feb 2019, in the entire region up to Chamba, access roads got severely damaged. Power Supply remained completely cut off to the entire region during 6 th ~25 th Feb 2019.
29	Tidong-I M/s Statkraft India Pvt. Ltd. 2x50 = 100 MW 28.07.2006 Broad Features: HRT-D-3.5m L- 8461 m P.H. Surface Turbine –Vertical Pelton Cost: <u>Original</u> 543.15 <u>Latest</u> 1286.27 Contractors Civil & HM : SCL Infratech / Himalaya E&M : Alstom	<u>H.P.</u> 2013-14 2022-23 (Jun. 22)	Barrage & River Diversion Works: Common Excavation completed and 71700.84/73409.00 open cut rock excavation completed. 32144 cum out of 37159 cum concreting done. Head Regulator & Desilting arrangement: Common excavation completed. 9763 cum open cut rock excavation out of 10,000 cum completed. HRT (8526m): Excavation completed and 6587.5/8534 m lining concreting has been completed. Surge Shaft: Excavation 66m/89m completed. Pressure Shaft: Excavation completed. 370m / 1310m lining completed. Power house and Tail race channel- 87709 cum out of 92500 cum excavation completed. 11237 cum out of 16156 cum concreting completed. Overall 76 % of Powerhouse civil works completed. M/s Statkraft India Pvt Ltd has acquired the 100% equity of the project on 04.09.2018 and remobilization of manpower on the project is in progress. Presently project is scheduled to be commissioned by June 2022.	- Slow progress of works. - Transmission Line critical.
30	Kutehr M/s JSW Energy (Kutehr) Ltd. 3x80 = 240 MW 31.08.2010 Broad Features: Cost: <u>Original</u> : 1798.13	<u>H.P.</u> 2024-25 2024-25 (Oct'24)	Civil works, HM works and E&M works awarded on 20.10.2019, 19.09.2019 and 13.02.2020 respectively. River diversion achieved on 25.01.2020. Barrage (27m high): Barrage excavation (left bank) completed to the tune of 125696 Cum out of 129400 Cum. Concreting of upstream keys completed. Apron concreting to the tune of 3189 cum out of 9137 cum completed. Left training wall concreting to the tune of 669 cum out of 11065 cum completed.	-

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	Latest : 1798.13 Contractors Civil & HM : M/s Angelique – PCC consortium, M/s MF Bumi Geotech Pvt. Ltd. & M/s. PES Engineers Pvt. Ltd. E&M : M/s Andritz Hydro Pvt Ltd.		HRT : Five out of Six Construction Adits to HRT completed (i.e. 1431 m out of 1612 m completed). 1922m out of 14538 m of Head Race Tunnel excavation completed.	
31	Phata Byung M/s Lanco 06.10.2008 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 : 1133 Contractors Civil : Lanco HM : Cimmo E&M : Alstom	<u>Uttara khand</u> <u>2012-13</u> 2024-25 (Subject to re-start of works)	Dam concreting: 17800/18000 cum concreting completed. P.H.: Excavation completed & Concreting in progress. HRT: Excavation almost completed. 1400 m Lining has been completed. Excavation and lining of Intake-I & Intake-II completed. Pressure shaft: Excavation completed & lining is under progress. TRT: Excavation 178/235m completed. E&M Works: Pit liner erection of units completed. EOT Crane installed and Commissioned. Ferrule Fabrication work is in progress. work progress is stalled since July'17 on account of main EPC contractor and holding Company M/s Lanco Infratech Limited (LITL) being referred to NCLT under the Corporate Insolvency Resolution Process (CIRP) and subsequently, the initiation of liquidation proceeding as per NCLT Liquidation order in August 2018. However, the preservation works of Project are being carried out regularly at site by the Company, Lanco Mandakini Hydro Energy Private Limited (LMHEPL). Presently, 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 has initiated the process for inviting prospective investors for the project.	- Works severely affected due to flash floods in June, 2013. - Works are stalled since July, 2017 due to Funds constraints with the developer. - Presently, the company is undergoing corporate insolvency resolution process initiated under IBC for resolution and revival of the project.
32	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	<u>M. P.</u> <u>2001-02</u> 2023-24 (Subject to re-start of works)	Civil & HM Works: All major civil works completed. All 27 nos radial gates commissioned. Unit Erection: Unit-10: Initial spinning achieved on 14.10.2011. Unit-9 & 8: Ready for spinning. Unit-7: Guide apparatus trial assembly in progress. Unit-6: Erection of turbine embedded parts & foundation parts completed. Unit-5 to 1: Erection of units is in initial stages. Works suspended since Nov-11 due to cash flow problem with developer. Recently, the GoMP constituted a High-Level Task Force vide Energy Department Order dtd. 18.04.2019, under the Chairmanship of Dr. Rajan Katoch (IAS Retd.) and having Senior IAS Officers from GoMP among others as members to examine the difficulties in implementation of the project and suggest the way forward. In the first meeting of the Task Force held on 25.05.2019, the Chairman of the Task Force directed the Promoter and Lenders to engage in discussions to reach an understanding on the way forward. Pursuant to the directions of the Task Force, a Memorandum of Understanding (MoU) has been executed on 22.07.2019 between the Entegra Limited (Promoter), Power Finance Corporation (Lead Lender) and SMHPCL. As agreed in the MoU, new Management	- Completion of R&R works and E&M works. - Works held up due to Fund constraints with developer. - Sub-Judice in NCLT.

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			nominated by the Promoter has taken over charge of SMHPCL, in August 2019. Mr. M L Gupta, former CMD, THDCIL, who was also MD of SMHPCL during 2005-2010, has taken over as CMD of SMHPCL. Efforts are being made to initially commission the 3 machines already installed since 2011 and start generation with part filling of reservoir after completing R&R to that level. BHEL has agreed to supervise the restoration and commissioning of 3 machines. Action for arrangement of funds required is being taken. M.P. Power Management Company Ltd. has terminated the Power Purchase Agreement, R&R Agreement & Escrow Agreement with SMHPCL on 18.04.2020 & 20.04.2020 respectively.	
33	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 High & 14m dia. P.House-Outdoor Turbine-VF TRT-2 Nos, L- 50m Swityard-132/11 KV Cost : Original : 408.50 Latest : 690.30 Contractors Civil : Simplex E&M : Voith	<u>Sikkim</u> <u>2012-13</u> <u>2024-25</u> (Subject to re-start of works)	Project is in initial stage of construction. River diversion achieved. Barrage: 61555cum/194600cum excavation completed. HRT: 1670m/4460m excavation completed. PH: 136105 cum/185937cum excavation completed. Surge Shaft : 8567cum / 22000cum Surface excavation completed. Overall Physical progress: 38% .	- Slow progress of works - Works stalled since Sept., 2016 due to paucity of funds. -No investor showing interest for executing the project.
34	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	<u>Sikkim</u> <u>2015-16</u> <u>2024-25</u> (Subject to re-start of works)	EPC contract awarded to M/s Coastal in February, 2012. Diversión Tunnel: River diversion through diversion tunnel has been achieved. Dam : Excavation 53100cum out of 85000cum completed. HRT: Excavation 623m out of 4745m completed. Surge Shaft: Excavation completed. Concreting 37/1667 cum done. Pressure shaft: Excavation of pressure shaft I - 25m out of 128m and pressure shaft II - 154m out of 377m completed Power House: Excavation of surface power house is being taken up. Overall Physical progress: 40% .	Works are stalled due to non releasing of funds by lenders because of Power evacuation and land acquisition issues. Works restarted. A meeting with financiers were held on 23.09.2016 for release of funds. The developer was asked to submit certain document for release of funds. Works are stalled since December, 2017 due to funds constraints with developer. Project is in NCLT since 30.07.2020.
35	Rongnichu Madhya Bharat Power Corporation Ltd. 01.10.2008 2x56.5= 113MW Broad features :	<u>Sikkim</u> <u>2014-15</u> <u>2021-22</u> (May'21)	The civil works have been re-awarded to M/s Moshvaraya Infrastructure Ltd. and E&M works to M/s Litosroj Power, Slovenia & CG Electric system, Hungary. Barrage: Excavation & concreting completed. HRT: Excavation and concreting completed. Surge shaft: Excavation & Concreting completed.	-Non availability of Testing and commissioning foreign engineers as they left the project site during Covid-19.

Sl. No.	Name of Project Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores.	State Comm. Sch. (original/ Now Ant.	Broad Present Status / Critical Area	Remarks/ Critical issues
	Barrage : Height 14m, length 120.00m Desilting Basin : Size (60Lx18Wx7H)m. HRT : Horse shoe type, 12.302km, 4.00m dia Surge shaft : 85m high, 10m dia, orifice dia 1.7m Pressure shaft : 3.0m dia, 415m long steel lined Penstock 812m long Power house : Surface (61.5Lx47.75Wx38.0H)m Turbine : Pelton, vertical shaft, 2nos. Cost : Original : 491.32 Latest : 1453.34 Contractors Civil & HM : Sew E&M : Voith		Pressure Shaft: Excavation & lining completed Power House: Excavation & concreting completed. E&M works: Unit #1 : Erected.. Unit #2 : Erected... Overall Physical progress: 99.83% .	
36	Panan Himagiri Hydro Energy Pvt. Ltd. 07.03.2011 4x75= 300 MW Broad Features : Dam-115m from deepest foundation level 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 :2671.00 Contractors Civil : Essar	<u>Sikkim</u> <u>2018-19</u> 2025-26 (Subje ct to re- start of works)	Civil works awarded on 22.02.2014. Infrastructural works and geological investigations are in progress. Starting of civil construction works is held up for want of the National Board of Wild Life (NBWL) clearance. There was a case challenging the Eco-Sensitive zone notification of MoEF & Climate Change in NGT. The case is disposed on 21.8.2017. The developer applied for issuance of clearance from Forest, Environment & Wild Life Management Dept., Govt. of Sikkim from NBWL angle. In August, 2016, there was a huge land slide thereby creating a lake which obstruct the approach to project components. Developer are pursuing with concerned department of GoS for early decision on dismantling of Mantham Lake or developing an alternative road to reach the dam site to start main project civil works in full swing at the earliest. Overall Physical progress: NIL	-Works stalled for want of NoC from State Govt. from NBWL angle. - Issue of Mantham Lake.

Grand Total : 36 nos. – 12,690.5 MW

Chapter 6 B

Status of Under Execution Hydro Electric Projects in Bhutan

Sl. No.	Name of Project / Capacity(MW)/Executing Agency/Date of CEA clearance / Approval / Broad Features/Commissioning Schedule	Award of works	Broad Present Status
1.	Punatsangchhu-I 6x200=1200 MW PHPA, Bhutan Date of TEA: 27.07.2007 Broad Features : Dam – 136m High, 279.2m long, Concrete gravity (RCC) HRT- 10m x 8.948 km Pressure Shaft: Two nos. 6.0mx482.20m each Surge Shaft: 24.5mx128.5m TRT: 10.0m x1182.20m P.House-Underground Turbine- Vertical Francis SWYD- 400 kV Original Commissioning Schedule: Nov' 2016 Anticipated commissioning schedule : 2024-25	Civil Works: Package-I: L&T Ltd. on 27.03.2009 Package-II: Gammon India Ltd on 27.03.2009 Package-III:HCC Ltd. 27.03.09 E&M Main Works: Package-I : BHEL Ltd. on 04.02.2010 Package-II: BHEL Ltd. on 27.02.2012 Package-III:Hyosung Corporation on 28.02.2012 Package-IV: SudkabelGmbh on 27.05.2011 Package-V: Schneida Electric Ltd. on 21.11.2013. Transmission Works: Joyti Structures & Gammon (India) JV on 12.08.2010 (Ammended on 10.6.2013)	Dam (136m high and 239m long):- 69.913 lac cum excavation out of 71.177 lac cum is completed (69.87%). Desilting chamber (4 nos. each of 330 m length x 18m width x 24 m depth):- Excavation/ Concreting completed (100%). HRT (10m diameter, 8.9 km long):- Excavation and lining completed (100%). Surge Shaft (24.5m diameter 128.5m height):- Boring & lining completed (100%). Pressure Shaft (2nos. Each of 6m diameter 433m long and 6 penstocks of 3.32m diameter):- 99.81% works completed. Power House (236.5m x 22.9m x 53m size):- Excavation completed. Concreting 32,300 cum out of 33,300 cum completed (99.99%). TRT (10.0 m diameter and 1182.20m long): Excavation and lining completed. E&M Works:- Box-up of U#1 & U#2 is in progress and rest of units are in various stages of construction (94.37%). Cumulative Physical Progress is 87.02%. Critical: Movement & subsidence at right bank hill. Completion of dam works.
2.	Punatsangchhu-II 6x170=1020 MW PHPA, Bhutan Date of TEA: 30.04.2010 Broad Features : Dam – 86m High, 213.5m long, concrete gravity HRT- 11m x 8.585 km Pressure Shaft: 3 nos. 5.5mx997m each Surge Shaft:31 m x137m TRT: 11.0m x3163m P.House-Underground Turbine- Vertical Francis SWYD- 400 kV Original Commissioning	Civil Works: Package- CI : JP Associate Ltd. on 25.07.2011 Package-CII: Gammon India Ltd on 25.07.2011 Package-CIII: JP Associate Ltd. on 25.07.2011 E&M Main Works: Package-I: BHEL Ltd. on 18.07.2012 Package-II: BHEL Ltd. on 7.05.2013 Package-III: Hyosung Corporation on 7.05.2013 Package-IV:LS Cables & System Ltd. on 7.05.2013	Dam (86m high and 213.5m wide):- Excavation completed. Adverse geological situation faced at the left bank of the dam. Conc.8.474 lakh cum completed out of 9.08 lakh cum. (88.93%) Desilting Chamber:- Excavation completed and lining 150667 cum out of 153176 cum completed. (97.70%) HRT (11m diameter, 8.58 km long):- Excavation in benching completed, overt lining completed and invert lining 6294 m out of 6314 m completed. (99.08%) Surge Shaft (31m diameter 137 m height):- Excavation and lining completed. Pressure Shaft:- Erection & conc. of Steel Liner 1236 M completed out of 1454 M.

Sl. No.	Name of Project / Capacity(MW)/Executing Agency/Date of CEA clearance / Approval / Broad Features/Commissioning Schedule	Award of works	Broad Present Status
	Schedule: June' 2017 Anticipated commissioning schedule: 2022-23 (Likely to shift due to effect of floods on E&M equipments)	Transmission Works: Bhutan Power Corp.Ltd on 21.03.2013 (on deposit work basis)	(95.50%) Power House (236m x 23m x 51m size):- M/C Hall Excavation completed and Benching from EL 582 m to EL 555.50 m completed . Erection of D/T liners for U# 1 to 4 completed and for U# 5 &6 is in progress. Transformer hall excavation completed. (80.04%) TRT (11m diameter 3.3 km long):- Heading Excavation completed. 39 m overt conc. from face-V and 1250m invert lining from face-III is also completed. (93%) E& M Works: Erection and Commissioning of EOT crane has been completed. Erection works of Generating Units is in progress. (79.31%) Cumulative Physical Progress is 89.36%. Critical: - Restoration & completion of downstream Surge gallery works. - E&M works.

Chapter-7

Financial Status of Under Construction H.E.P.

Figures in Crores

Sl. No.	Name of project/ State	Capacity (MW)	Benefits (MW)	Cost	Ant .Cost.	Total Expend. Upto Mar'18	Total Expend. Upto Mar'19	Total Expend. Upto (Mar' 20)	Total Expend. Upto (Month)	Expend. During 2020-21
	(State)			(PL)	(PL)					
	Under Execution									
	Central Sector									
1	Pakal Dul (CVPPL)	4x250	1000	8112.12	8112.12	993.93	1086.32	1465.44	1766.91	301.47
	J&K			(03/2013)	(03/2013)				(Mar,21)	(Mar,21)
2	Parbati -II(NHPC)	4x200	800	3919.59	9897.59	6670.12	7277.60	7858.50	8866.70	1008.20
	H.P.			(12/2001)	(04/2018)				(Mar,21)	(Mar,21)
3	Tehri PSP (THDC), Uttarakhand	4x250	1000	1657.60	5024.35	2540.27	2792.49	3374.95	3940.54	565.59
				(12/2005)	(02/2019)				(Mar,21)	(Mar,21)
4	Tapovan Vishnugad (NTPC)	4x130	520	2978.48	5867.38	3521.00	3938.20	4467.43	4891.26	423.83
	Uttarakhand			(03/2004)	(04/2019)				(Mar,21)	(Mar,21)
5	Lata Tapovan(NTPC)	3x57	171	1527.00	1527.00	148.00	149.16	149.21	149.21	0.00
	Uttarakhand			(07/2012)	(07/2012)				(Mar,21)	(Mar,21)
6	Vishnugad Pipalkoti (THDC)	4x111	444	2491.58	4397.80	1393.66	1604.36	1936.99	2207.95	270.96
	Uttarakhand			(03/2008)	(02/2019)				(Mar,21)	(Mar,21)
7	Ramam-III (NTPC)	3x40	120	1381.84	1381.84	322.00	447.75	517.86	660.06	142.20
	West Bengal			09/2014	09/2014				(Mar,21)	(Mar,21)
8	Subansiri Lower (NHPC)	8x250	2000	6285.33	19992.43	9966.92	10749.37	12225.96	13537.76	1311.80
	Ar. Pradesh/Assam			(12/2002)	(04/2017)				(Mar,21)	(Mar,21)
9	Kameng (NEEPCO)#	4x150	300	2496.90	6179.96	6424.41	7120.47	7945.62	8215.89	270.27
	Ar. Pradesh			(03/2004)	(03/2015)				(Mar,21)	(Mar,21)
10	Naitwar Mori (SJVN)	2x30	60	648.33	648.33	100.37	198.68	355.65	569.80	214.15
	Uttarakhand			(10/2016)	(10/2016)				(Mar,21)	(Mar,21)
11	Teesta St. VI (NHPC)	4x125	500	5748.04	5748.04		897.50		926.12	926.12
	Sikkim			(07/2018)	(07/2018)				(Dec,20)	(Dec,20)
12	Ratle	4x205 + 1x30	850	5281.94	5281.94	1451.00			1451.00	
	J&K			(NA)	(NA)	(Mar-16)			(Mar-16)	
13	Kiru (CVPPL)	4x156	624	4287.59	4287.59		128.10	305.35	491.03	185.68
	J&K			(9/2014)	(9/2014)				(Mar,21)	(Mar,21)
14	Rangit-IV	3x40	120	726.16	1692.60	818.44			818.44	
	Sikkim			(2011-12)	(06/2016)	(Jun-17)			(Jun-17)	
15	Luhri-I	2x80+2x25	210	1912.59			NA	NA	417.95	
	H.P.			(2017)					(Mar,21)	
	Sub Total: Central Sector		8719.00	49455.09	80038.97					
	State Sector									
16	Parnai	3x12.5	37.50	640.86	640.86	136.50	189.62	221.69	239.64	17.95
	J&K			(NA)	(NA)				(Mar-21)	(Mar-21)
17	Lower Kalnai	2x24	48	576.87	576.87	87.94			87.94	
	J&K			(NA)	(NA)	(Dec-17)			(Dec,17)	
18	Uhl-III	3x33.33	100	431.56	1281.52	1459.21	1602.78	1927.49	2084.87	157.38
	H.P.			(09/2002)	(12/2012)	(Feb-18)	(Feb-19)	(Mar,20)	(Mar,21)	(Dec,20)
19	Sawara Kuddu #	3x37	111	558.53	1181.9	1232.00	1609.98	1744.23	1772.31	28.09
	H.P.			(03/2003)	(03/2012)				(Mar-21)	(Mar-21)
20	Shontong Karcham	3x150	450	2807.83	2807.83	657.56	918.05	1130.90	1320.32	189.42
	H.P.			(07/2011)	(07/2011)				(Mar,21)	(Mar,21)
21	Vyasi	2x60	120	936.23	1581.01	430.67	825.73	1213.14	1568.75	355.61
	Uttarakhand			(02/2010)	2019				(Mar,21)	(Mar,21)
22	Shahpurkandi	3x33+3x33+1x8	206	1835.50	1938.74	650.00	729.96	1241.58	2082.30	840.72
	Punjab			(4/2008)	(2/2018)	(Mar-18)			(Mar,21)	(Mar,21)
23	Koyna Left bank PSS	2x40	80	245.02	1403.77	165.39	165.39	165.39	165.39	0.00
	Maharashtra			(1999)	(2014)				(Mar,21)	(Mar,21)
24	Polavaram HEP (PPA)	12x80	960	3013.68	5338.95	608.74	758.708	802.18	802.18	0.00
	Andhra Pradesh			(2010-11)	(2016-17)				(Mar,21)	(Mar,21)
25	Pallivasal (KSEB)	2x30	60	222	550	259.35	302.36	356.18	394.92	38.74
	Kerala			(1999)	(2018)				(Mar,21)	(Mar,21)
26	Thottiyar (KSEB)	1x30 + 1x10	40	136.79	280	61.08	63.61	100.79	124.24	23.45
	Kerala			(2007)	(2018)				(Mar,21)	(Mar,21)
27	Kundah Pumped Storage-I	4x125	500.00	1216.59	1831.29	136.74	221.52	270.09	343.04	72.95
	Tamil Nadu / (TANGENDCO)			(2007-08)	(2014)				(Mar,21)	(Mar,21)
	Sub-total: State Sector		2712.50	12621.46	19412.74					
	Private Sector									
28	Sorang	2x50	100	586.00	586.00	1380			1380	
	H.P.			(4/2005)	(4/2005)	(Jun-17)			(Jun-17)	
29	Tidong-I	2x50	100	543.15	1472.00		163.74	780	858	78.00
	H.P.			(06/2018)					(Mar-21)	(Mar-21)
30	Tangnu Romai- I	2x22	44	255.00	641.89	329.36			329.36	
	H.P.			(1/2007)	(2018)	(Mar-18)			(Mar-18)	
31	Bajoli Holi	3x60	180	1696.93	2689	1740.00	2188.00	2481	3069.00	588.00
	H.P.			(12/2011)	(05/2020)	(Mar-18)			(Mar-21)	(Mar-21)
32	Phata Byung	2x38	76	520.00	1132.00	1135.00	1263.00		1263.00	
	Uttarakhand			(2013-14)	(9/2016)	(Dec-17)	(Dec-18)		(Dec-18)	

Sl. No.	Name of project/ State	Capacity (MW)	Benefits (MW)	Cost	Ant .Cost.	Total Expend. Upto Mar'18	Total Expend. Upto Mar'19	Total Expend. Upto (Mar' 20)	Total Expend. Upto (Month)	Expend. During 2020-21
	(State)			(PL)	(PL)					
33	Singoli Bhatwari #	3x33	99	666.47	2168	1474.00	1741.00	2089.00	2110.00	21.00
	Uttarakhand			(2008)	(2019)				(Dec,20)	(Dec,20)
34	Maheshwar	10x40	400	1569.27	8121.00				5443	
	M.P.			(1996-97)	(2016-17)				(Sept.16)	
35	Bhasmey	2x25.5	51	408.50	746.01	353.00			353.00	
	Sikkim			(2012-13)	(03/2018)	(Jun-17)			(Jun-17)	
36	Rangit- II	2x33	66	496.44	496.44	125.76	126.83		126.83	
	Sikkim			(2011-12)	(2011-12)	(Feb-18)	(June-18)		(June-18)	
37	Rongnichu	2x48	96	491.32	1453.34	126.53	1085.00	1376.24	1574.66	198.42
	Sikkim			(NA)	(2018)	(Mar-18)	(Mar.19)		(Mar,21)	(Mar,21)
38	Panan	4x75	300	1833.05	2671.00	165.00	170.00	155.10	156.00	0.90
	Sikkim			(2009)	(2018)		(Nov.18)		(Mar,21)	(Mar,21)
39	Kutehr (JSW Energy (Kutehr)Ltd.	3x80	240.00	1798.13	1798.13			279.97	413.00	133.03
	H.P.			(09/2011)	(09/2011)				(Mar,21)	(Mar,21)
	Sub-total: Private Sector		1752.00	11590.42	25667.41					
	Total : (Under Execution):		13,183.50	73,666.97	125,119.12					

Note:-It is to mention that investment data is tentative (un-audited) as furnished by the developers in the monthly progress reports

These three Projects (total capacity of 510 MW) have already been commissioned in the year 2020-21

Chapter 8
Status of Environmental and Forest Clearance of Under Construction Hydro Electric Projects

Sl. No.	Name of Project	State	I.C. (No.xMW)	Benefits (MW)	Date of Clearance	Date of Env. Clearance	Date of Forest Clearance	Date of Approval
A Commissioned during 2020-21								
1	Kameng (NEEPCO). Two(2) unit commissioned.	Ar.Pr.	4x150	300.00	30.04.91	29.03.01	03.08.2000	02.12.04
2	Sawra Kuddu HPPCL, commissioned.	H.P.	3x 37	111.00	01.06.07	01.05.07	01.06.06	01.06.07
3	Singoli Bhatwari L&T, commissioned.	Uttarakhand	3x 33	99.00		24.08.07	16.01.09	11.07.08
B Under Execution								
Central Sector								
1	Pakal Dul (CVPPL)	J&K	4x250	1000	03.10.06	12.07.12	15.12.15	28.10.14
2	Parbati-II (NHPC)	H.P.	2x400	800.00	03.01.01	04.06.01	04.09.2001	11.09.02
3	Tehri PSS (THDC)	Utt.	4x250	1000.00	10.10.88	19.07.90	04.06.87	18.07.06
4	Tapovan Vishnugad (NTPC)	Utt.	4x130	520.00	11.08.04	08.02.05	22.04.06	11/2006
5	Lata Tapovan (NTPC)	Utt.	3x57	171.00	08.02.06	21.02.07	30.04.07	01.08.12
6	Vishnugad Pipalkoti (THDC)	Utt.	4x111	444.00	09/2006	22.08.07	28.05.13	21.08.08
7	Ramam-III (NTPC)	W.B.	3x40	120.00	12.09.06	17.08.07	18.10.08	10.09.14
8	Subansiri Lower (NHPC)	Ar. Pr./Asm.	8x250	2000.00	13.01.03	16.07.03	24.06.2004	09.09.03
9	Naitwar Mori (SJVN)	Uttarakhand	2x30	60.00	02.03.10	16.06.2016	05.08.2016	16.10.17
10	Teesta St. VI	Sikkim	4x125	500.00	-	21.09.06	25.04.08	27.12.06
11	Ratle (Ratle Hydro) #	J&K	4x205+1x30	850.00	-	12.12.12	27.04.12	19.12.12
12	Kiru (CVPPL)	J&K	4x156	624.00		24.06.16	19.05.16	08.03.19
13	Rangit-IV	Sikkim	3x40	120.00	-	16.05.07	26.12.07	06.07.07
14	Luhri -I (SJVN)	H.P.	2x80+2x25	210.00				01.05.18
Sub-total (Central Sector):				8419.00				
State Sector								
15	Parnai (JKSPDC)	J&K	3x12.5	37.50	11.12.1992	24.12.2010	17.05.2013	25.10.2013
16	Lower Kalnai (JKSPDC)	J&K	2x24	48.00	16.08.2013	22.08.2014		16.08.2013
17	Uhl-III	H.P.	3x33.33	100.00	19.09.02	15.11.02	20.12.02	26.09.03
18	Shongtong Karcham	H.P.	3x150	450.00	16.8.12	19.05.11	22.03.11	-
19	Vyasi	Uttarakhand	2x60	120.00	25.10.2011	22.04.10	14.10.13	25.10.2011
20	Shahpurkandi	Punjab	3x33+3x33+1x8	206.00	08/2009	18.11.81	Not Req'd.	04.05.11
21	Koyna Left Bank PSS	Mah.	2x40	80.00	-	16.05.07	Not Req'd.	20.02.04
22	Indrasagar Polavaram (PPA)	Andhra Pr.	12x80	960.00	21.07.2010	28.07.10	21.07.10	25.02.09
23	Pallivasal Extn.	Kerala	2x30	60.00	31.01.07	Not Req'd.	11.07.07	31.01.07
24	Thottiyar	Kerala	1x30 + 1x10	40.00	05.06.08	Not Req'd.	11.07.07	05.06.08
25	Kundah Pumped Storage-I (T	Tamil Nadu	4x125	500.00	15.02.18	08.05.07	27.11.08	03.12.08
Sub-total (State Sector):				2601.50				
Private Sector								
26	Sorang	H.P.	2x50	100.00	-	07.09.06	Nov, 06	June, 06
27	Tidong-I	H.P.	100.00	100.00	-	18.06.08	18.06.08	23.07.07
28	Tangnu Romai- I	H.P.	2x22	44.00	-	01.05.09	19.01.10	30.11.07
29	Bajoli Holi	H.P.	3x60	180.00	-	24.01.11	08.07.11	30.12.11
30	Phata Byung	Uttarakhand	2x38	76.00	-	01.05.09	-	30.11.07
31	Maheshwar	M.P.	10x40	400.00	-	07.01.94	Not Req'd.	29.09.06
32	Bhasmey	Sikkim	2x25.5	51.00	-	15.05.07	13.09.10	-
33	Rangit- II	Sikkim	2x33	66.00	-	16.04.10	22.10.10	10.2.10
34	Rongnichu	Sikkim	2x56.5	113.00	-	04.04.07	18.05.09	01.10.08
35	Panan	Sikkim	4x75	300.00	-	02.01.07	21.09.10	07.03.11
36	Kutehr	H.P.	3x80	240.00		05.07.11	19.02.13	31.03.10
Sub-total (Private Sector):				1670.00				

Chapter 9

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

Sl. No.	Name of Project	State	Capacity (MW)	Benefits	Date of CCEA/ Investment	Date of letter 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	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	Lata Tapovan (NTPC)	Uttarakhand	3x57	171.00	08/2012	17.08.2012
6	Vishnugad Pipalkoti (THDC)	Uttarakhand	4x111	444.00	21.08.08	17.01.2014
7	Ramam-III	W.B.	3x40	120.00	10.9.14	10.09.2014
8	Subansiri Lower (NHPC)	Ar.Pr./ Assam	8x250	2000.00	09.09.03	19.12.2003
9	Naitwar Mori (SJVN)	Uttarakhand	2x30	60.00	16.10.2017	05.12.2017
10	Teesta St. VI	Sikkim	4x125	500.00	08.03.19	03/2007
11	Ratle (Ratle Hydro) #	J&K	4x205+1x30	850.00	19.12.12	04.07.2013
12	Kiru (CVPPL)	J&K	4x156	624.00	08.03.2019	24.02.2020
13	Rangit-IV	Sikkim	3x40	120.00	06.07.07	22.11.2007
14	Luhri -I (SJVN)	H.P.	2x80+2x2	210.00		22.12.2020
Sub-total (Central Sector):				8419.00		
State Sector						
15	Parnai (JKSPDC)	J&K	3x12.5	37.50	21.10.2013	25.10.2013
16	Lower Kalnai (JKSPDC)	J&K	2x24	48.00	16.08.2013	12.09.2013
17	Uhl-III	H.P.	3x33.33	100.00	19.09.02	02.04.2003
18	Shongton Karcham	H.P.	3x150	450.00	16.08.12	04.08.2012
19	Vyasi	Uttarakhand	2x60	120.00	25.10.11	10.12.2013
20	Shahpurkandi	Punjab	3x33+3x33+1x8	206.00	04.05.11	11.02.2013
21	Koyna Left Bank PSS	Mah.	2x40	80.00	20.02.04	20.06.2007
22	Indrasagar Polavaram (PPA)	Andhra Pr.	12x80	960.00	21.02.2012	20.12.2017
23	Pallivasal	Kerala	2x30	60.00	31.01.07	31.01.2007
24	Thottiyar	Kerala	1x30 + 1x10	40.00	05.06.08	22.12.2008
25	Kundah Pumped Storage-I (TAI)	Tamil Nadu	4x125	500.00	03.12.08	15.02.2018
Sub-total (State Sector):				2601.50		
Private Sector						
26	Sorang	H.P.	2x50	100.00	06/06	06/2007
27	Tidong-I	H.P.	100.00	100.00	23.07.07	07.11.2008
28	Tangnu Romai- I	H.P.	2x22	44.00	2014-15	14.06.2010
29	Bajoli Holi	H.P.	3x60	180.00	30.12.11	29.05.2013
30	Phata Byung	Uttarakhand	2x38	76.00	06.10.08	12.04.2008
31	Maheshwar	M.P.	10x40	400.00	30.12.96	22.02.2097
32	Bhasmey	Sikkim	2x25.5	51.00	Dec-08	12.04.2010
33	Rangit-II	Sikkim	2x33	66.00	10.02.10	24.10.2011
34	Rongnichu	Sikkim	2x56.5	113.00	01.10.08	07.04.2010
35	Panan	Sikkim	4x75	300.00	07.03.11	22.02.2014
36	Kutehr (JSW Energy (Kutehr)Lt	H.P.	3x80	240.00	31.03.10	20.10.2019
Sub-total (Private Sector):				1670.00		

Chapter 9.1

Ordering Status of TG sets for Under Construction Hydro Electric Projects					
Summary- Units Ordered					
Sector	Benefits	Capacity Ordered			Not yet ordered
	(MW)	BHEL	Others	Total Ordered	
Central Sector	8419.00	2055.00	6154.00	8209.00	210.00
State Sector	2601.50	426.00	715.50	1141.50	1460.00
Private Sector	1670.00	400.00	970.00	1370.00	300.00
Total: Under Execution	12690.50	2881.00	7839.50	10720.50	1970.00

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
A. Central Sector					
BHEL Units					
1	Parbati-II (NHPC),(H.P.	4x200	800.00	BHEL	24.12.02
2	Tapovan Vishnugad (NTPC), Utt.	4x130	520.00	BHEL	01/2008
3	Lata Tapovan, Uttarakhand	3x57	171.00	BHEL	12/2012
4	Vishnugad Pipalkoti (THDC)	4x111	444.00	BHEL	18.11.14
5	Ramam-III (NTPC)	3x40	120.00	BHEL	10.09.14
Sub-total- BHEL			2055.00		
Other Units					
6	Tehri PSP (THDC)	4x250	1000.00	Alstom, France	23.06.11
7	Subansiri Lower (NHPC), Ar. Pr.	8x250	2000.00	Alstom, France & India	11.02.05
8	Naitwar Mori (Uttarakhand)	2x30	60.00	Voith Hydro Pvt. Ltd.	20.07.18
9	Teesta St. VI, (Sikkim)	4x125	500.00	Alstom, India	04/2009
10	Pakal Dul(J&K)	4x250	1000.00	Voith Hydro Pvt. Ltd.	01/2019
11	Ratle (J&K)	4x205+1x30	850.00	Alstom, India	31.12.12
12	Rangit-IV, (Sikkim)	3x40	120.00	Andritz Hydro, India	28.08.09
13	Kiru (CVPPL)	4x156	624.00	M/s Andritz Hydro Pvt. Ltd.	24.02.20
Sub-total- Others			6154.00		
Sub-total (Central Sector):			8209.00		
B State Sector					
BHEL Units					
14	Uhl-III (H.P.) BVPCL	3x33.33	100.00	BHEL	15.02.07
15	Shahpurkandi, Punjab ; PSPCL	3x33+3x33+1x8	206.00	BHEL	28.02.14
16	Vyasi , Uttarakhand UJVNL	2x60	120.00	BHEL	26.03.14
Sub-total- BHEL			426.00		
Chinese					
17	Pallivasal, Kerala ;KSEB	2x30	60.00	Dongfang Elec.Corp., China	31.01.07
18	Thottiyar, Kerala KSEB	1x30 + 1x10	40.00	Chongqing, China	22.12.08
Sub-total- Chinese			100.00		
OTHER UNITS					
19	Koyana Left Bank PSS, Maharashtra	2x40	80.00	Litostroj Slovenia, Koncar, Croatia	16.12.10
20	Shontong Karcham, H.P.	3x150	450.00	Andritz Hydro, India	04.03.15
21	Parnai (JKSPDC) J&K	3x12.5	37.50	Andritz Hydro, India	-
22	Lower Kalnai (JKSPDC) J&K	2x24	48.00	GE Power India Pvt. Ltd.	-
Sub-total- Others			615.50		
Sub-total (State Sector):			1141.50		

Sl. No.	Name of the Project/State	Capacity (No.x MW)	Benefits (MW)	Make/Supplier of TG set	Date of Order
C	Private Sector				
	BHEL Units				
23	Maheshwar (M.P.)	4x100	400.00	BHEL	25.06.07
	Sub-total- BHEL		400.00		
	OTHER UNITS				
24	Sorang (H.P.)	2x50	100.00	Voith Siemens, India	06/2007
25	Tidong-I, (H.P.)	100.00	100.00	Alstom, India	28.02.11
26	Tangnu Romai- I, (H.P.)	2x22	44.00	Andritz Hydro, India	17.04.13
		76.00	76.00		
27	Phata Byung, (Uttarakhand)	2x25.5	51.00	Alstom, India	12.04.08
28	Bhasmey, (Sikkim)	2x56.5	113.00	Voith Hydro, India	14.04.10
29	Rongnichu, (Sikkim)	2x33	66.00	Voith Hydro, India	28.09.11
30	Rangit-II, (Sikkim)	3x60	180.00	Gammon India Ltd.	24.03.12
31	Bajoli Holi, (H.P.)	3x80	240.00	Alstom, India	20.02.15
32	Kutehr(HP)			ANDRITZ HYDRO PVT. LTD. INDIA	13.02.20
	Sub-total- Others		970.00		
	Sub-total (Private Sector):		1370.00		
	Under Execution Total (Units Ordered):		10720.50		
	<u>Units not yet ordered</u>				
A	Central Sector				
33	Luhri -I (SJVN)	2x80+2x25	210.00		
	Sub-total (Central Sector):		210.00		
B	State Sector				
34	Polavaram (PPA) Andhra Pr.	12x80	960.00		
35	Kundah Pumped Storage-I (Tamil Nadu)	4x125	500.00		
	Sub-total (State Sector):		1460.00		
C	Private Sector				
36	Panan, Sikkim	4x75	300.00		
	Sub-total (Private Sector):		300.00		
	Total: (Units not yet ordered)		1970.00		
	Total: Under execution		12690.50		

Chapter 9.3

Status of 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 (commencement)/ Completion
Under Execution							
A Central Sector							
1	Pakal Dul CVPPL 03.10.2006/ 28.10.2014 4x250 = 1000MW	<u>J&K</u> <u>NR</u>	Civil works	Power House Package- Letter of Acceptance issued to M/s. Afcons-JP Associates JV on 21.02.2018	M/s. Afcons-Jaiprakash Associates JV	1051.00	<u>21.02.2018</u>
				Dam Pkg. Letter of Acceptance issued to M/s Jaiprakash Associates on 21.06.2018	M/s Jaiprakash Associates	2853.00	<u>21.06.2018</u>
			E&M Works	Letter of Award Issued	M/s. Voith Hydro Limited	703.63	<u>02.01.2019</u>
			H&M Works	Bids have been evaluated. The package is likely to be awarded by May'2019	-		
2	Parbati-II NHPC 12.10.1999/ 11.09.2002 4x200 = 800 MW	<u>H.P.</u> <u>NR</u>	Civil works	Lot-1: Civil & HM works for Dam and Part HRT (0-3500m)	M/s Patel-SEW JV,	322.9	<u>11.09.2002</u> <u>10.09.2007</u>
				Lot-2: Civil & HM works of HRT (3500-24733m)	M/s Himachal JV	419.89	<u>11.09.2002</u> <u>10.09.2007</u>
				Contract terminated in March-12 and Fresh awarded as under.			
				Lot-2A: Balance civil works of HRT by TBM	M/s Gammon-CMS JV, Mumbai	455.63	<u>13.08.2013</u> <u>12.08.2017</u>
				Lot-2B: Balance civil works of HRT by DBM and associated HM works	M/s Valecha Engg. Ltd, Mumbai	176.29	<u>21.11.2013</u> <u>20.11.2017</u>
				Lot-3: Civil & HM works of Power House, Pressure Shaft, Surge Shaft & Part HRT (24733-31525)	M/s Gammon India Ltd.	603.69	<u>13.09.2002</u> <u>13.03.2007</u>
				Lot-4: Jiwa Nallah Works	M/s BJ_Techno-HAS (JV)	56.47	<u>11.09.2002</u> <u>10.09.2007</u>
				Contract terminated and Fresh awarded as under:			
				Lot-4A: Balance Civil & HM works of Jiwa Nallah and associated works	M/s Coastal Projects, Noida	78.34	<u>22.06.2011</u> <u>21.04.2014</u>
			E&M works	Generating Units, EOT Crane	M/s BHEL	354.44	<u>24.12.2002</u> <u>23.04.2007</u>
				Main step up Transformers, Switch Yard and			
				Electrical & Mechanical Auxiliaries	M/s BHEL	34.2	<u>24.12.2002</u> <u>23.04.2007</u>
			E&M works	Design, Manufacture, Supply, Erection , Testing & commg.	M/s BHEL	391.11	<u>29.12.2006</u> <u>02/2011</u>
			H&M works	Hydro-Mechanical Packages	M/s Om Metals-SPML (JV)	96.08	<u>26.07.07</u> <u>15.8.10</u>
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 Contract	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.	<u>23.06.2011</u> <u>27.07.11</u> <u>26.01.2016</u> (Commencement Date)

Sl. No .	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State <u>Region</u>	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value (Rs. Crs.)	Date of Contract (commencem ent)/ Completion
							U-1: 48 Mth. U-2: 50 Mth. U-3: 52 Mth. U-4: 54 mth. (from commenc.)
4	Tapovan Vishnugad NTPC 11.08.2004/Nov, 2006 4x130 = 520 MW	<u>Uttara khand NR</u>		Construction of Barrage and De- silting chambers	M/s SSJV Projects Pvt. Ltd. and M/s ZVS, Russia	276..91	01/2007 07/2012 Contract terminated in Nov-10.
			Civil works	Contract terminated in November-10 and fresh award made in July-12			
				Construction of Barrage and De- silting chambers (Balance Works)	M/s Rithwik Projects Pvt. Ltd., Hyderabad.	457.57	07/2012 03/2015
				Works have been re-awarded. Details to be provided.	M/s L&T Ltd. and M/s Alpine Mayreder Bau GmbH	455.921	11/2006 08/2012
				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	328.28 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
5	Lata Tapovan, NTPC Aug-2012 3x57= 171 MW	<u>Uttara khand NR</u>	Civil & HM works	EPC Contract	M/s L&T	780.54	17.08.2012 16.08.2017
			E&M Package		BHEL	2611.04	Dec, 12 June, 17
6	Vishnugad Pipalkoti, THDC 21.08.2008 4x111= 444 MW	<u>Uttara khand NR</u>	Civil & HM works	EPC Contract	M/s HCC Ltd	1597.30	17.01.2014 16.07.2018
			E&M Package	EPC Contract	BHEL	360.36	18.11.2014 17.11.2018
7	Teesta-VI NHPC 08.03.2019/ 07/2007(FC) 4x125= 500MW	<u>Sikkim NER</u>	Civil works	Barrage, Desilting Basin, SFT, Intake part of HRT-I &HRT-II & other associated structure	M/s Jay Pee Associate		31.03.2020
				Part of HRT-I &HRT-II , Surge Shaft, Power House ,TRT & other associated structure	M/s Gammon Engineers		15.03.2020
8	Subansiri Lower NHPC 07.06.2001/09.09. 03 8x250= 2000 MW	<u>Ar.Pr/ Assam NER</u>	Civil works	Dam/Barrage, Water conductor system	M/s BGS – SGS - Soma JV, Hyderabad	1098.32	19.12.2003 12/2009
				Power House & Tail Race civil works	M/s L & T LTD, Chennai	921.59	19.12.2003 12/2009
				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.	1,23,74,37,486. 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

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 (commencement)/ Completion
9	Ramam-III NTPC Ltd. 3x40= 120 MW	<u>W.B.</u> <u>E.R.</u>	Civil works & HM 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	360.83	<u>10.09.14</u> 09/2019
				Access from bridge on Rammam river to various proj. components, 3.1 km HRT , Surface Power House, 740 m TRC and 132 KV Switchyard.	M/s. SEW Infrastructure Ltd.	265.39	<u>12.12.14</u> <u>12/2019</u>
			E&M works	Design, Engineering, Manufacturing, Supply, Insurance, Erection, Testing & Commissioning works for EM works EPC contract package.	M/s. BHEL	224.67	<u>19.02.2015</u> <u>11/2018</u>
10	Naitwar Mori (SJVN Ltd.) 02.03.2010 (2x30=60 MW)	Uttra khand	Civil Works	Major Civil works	M/s. Jaiprakash Associates Ltd.	370.87	<u>05.12.2017</u> <u>04.09.2021</u>
			E&M works	-	M/s. Voith Hydro Pvt. Ltd.		<u>11.06.2018</u> 11.10.2021
			H&M works	-	M/s GHW Pvt. Ltd.		<u>18.04.2018</u> 18.06.2022
11	Ratle GVK Ratle HEP Pvt. Ltd. (GRHEPPL) 19-12-2012 <u>4x205+1x30= 850</u> <u>MW</u>	<u>J&K</u> <u>NR</u>	Civil & HM Work s	EPC contract for Civil & HM works including infrastructure works	GVK Projects & Technical Services Ltd.	2400	<u>20.07.2012</u> 31.12.2017
			E&M works	EPC contract for E&M Works	M/s Alstom, India	800 Cr. + Euro 600000 + USD 4200000	<u>31.12.2012</u> 31.12.2017
			Review of Design of EPC Contractors		Lahmeyer International (India) Pvt. Ltd.	8.30 Cr. + Euro 580000	23.03.2013
12.	Kiru CVPPL 13.06.2016 4x156=624 MW	<u>J&K</u> <u>NR</u>	Civil Work s	Civil and HM works of DT, concrete gravity Dam, Intake, Pressure shaft, TRT and underground Power House.	M/s. Patel Engineering Ltd.	2240.27	<u>24.02.2020</u> <u>23.04.2024</u>
			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	<u>24.02.2020</u> <u>23.01.2020</u>
			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>23.07.204</u>

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 (commencement)/ Completion
13.	Rangit-IV Jal Power Corp. Ltd. 06.07.2007/23.1 0.2007(FC) 3x40 MW= 120	<u>Sikkim</u> <u>NER</u>	Civil works	Dam, Intake, desilting chamber Package	M/s Coastal Projects Pvt. Ltd	125.297	<u>01.02.2008</u> 46 months
				HRT Package		127.9	<u>22.11.2007</u> 47 months
				Power House, Surge-Shaft, Pressure Shaft, Switchyard & Tail race Channel		77.789	<u>23.05.2008</u> 48 months
				Road diversion Tunnel		7.938	<u>6.12.2007</u> 4 months
				Hill slopes Stabilization	M/s Bumi Engineering	19.951	<u>16.01.2010</u> 12 months
			H&M works	Supply, Fabrication, Assembly, testing, painting, erection of various gates and their operating equipment including accessories, auxiliaries etc.	M/s Texmaco Rail & Engg. Ltd.	36.7	
			E&M works	Package-I (Generating units and auxiliaries)	M/s Andritz Hydro, India	111.11	<u>28.08.2009</u> 12/2012
				Package-I (Generating units and auxiliaries)	M/s Siemens Ltd.	53.9	<u>14.04.2011</u> 04/2013
14.	Luhri Stage-1 SJVN Ltd. 01.05.2018 2x80+2x25=210 MW	<u>Himachal Pradesh</u>	Civil works		M/s Luhri Hydro Power Consortium.		22.12.2020
B	State Sector						
15	Parnai JKSPDC 21.10.2013 3x12.5= 37.5 MW	<u>NR J&K</u>	Civil works	EPC contract	M/s. Patel Engineering Ltd. & M/s. Alstom India.		<u>25.10.2013</u>
			E&M works	T.G. Set	M/S.Andritz Hydro, India		
16	Lower Kalnai JKSPDC 16.08.2013 2x24= 48 MW	<u>NR J&K</u>	Civil works	EPC contract	M/s Coastal Projects Ltd.		<u>12.09.2013</u>
			E&M works	T.G. Set	M/s. GE Power India Pvt. Ltd.		
17	Uhl-III, BVPC Ltd. 19.09.02 / ----- (TEC -2x50 MW) 3x33.3 =100	<u>H.P.</u> <u>NR</u>	Civil works	Neri Intake works & power channel	M/s SSJVPP Ltd. 12 th floor S.N.Tower 25/2 M.G.Road, Bangalore Fresh Package awarded on 25.10.08 to: Continental Corp Project Ltd.	8.68	<u>18.04.05</u> 15.8.07 Re-awarded on 25.10.08
				Head Race Tunnel (HRT)	M/s SSJVPP Ltd. 12 th floor S.N.Tower 25/2 M.G.Road, Bangalore 560001 Package re-awarded to: Continental Corp Project Ltd.. Re-awarded to M/s Abir Infrastructure Pvt. Ltd., Gurgaon.	69.58	<u>02.04.03</u> 30.04.07 15.10.2010
			& HM Works	Rana Intake Works & Power channel	M/s TRG Industries Pvt Ltd E- 461 Greater Kailash –II New Delhi	17.53	<u>26.07.05</u> 26.10.07
				Penstock fabrication, erection	M/s PES.Engineers Pvt. Ltd. Hyderabad-500016	57.26	<u>27.05.05</u> 27.11.07
				Power House	M/s Pilot Engg., Ludhiana	9.87	<u>19.6.2007</u> 12/2009
			E&M works	Generating Equipment & Associated Aux, Transformers	M/s BHEL	117.36	<u>15.02.07</u> 15.04.10

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 (commencement)/ Completion
18	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	<u>04.08.2012</u> 03.08.2017
19	Shahpurkandi, Irrigation Deptt/PSPCL 04.05.2011 3x33+3x33+1x8= 206 MW	<u>Punjab</u> <u>NR</u>	Civil works & HM works	Main Dam alongwith Two head regulators	SOMA-BUREYA Joint Venture	687.51	<u>11.02.2013</u> Oct- 2016
				Hydel Channel	M/s Gurinder Singh Contractor	90.11	<u>26.02.2013</u> Oct- 2015
			E&M works	EPC Contract	BHEL		<u>28.02.14</u>
20	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.	<u>20.06.2007</u> 30.06.2013 <u>03.10.2007</u> 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	<u>16.12.2010</u> 15.12.2014
21	Polavaram (PPA) 21.07.10/ 25.02.09 12x80 = 960MW	<u>Andhra</u> <u>Pradesh</u> <u>S.R.</u>	Civil works & HM works & E&M works	Investigation and L.P schedules etc., (Balance) &	M/s. Trans stroy- JSCECUES (JV), Hyderabad	4054.00	<u>02.03.2013</u> <u>01.03.2018</u>
				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 on 01.11.2019	3220.28 Crs 2810.88 Cr.	<u>20.12.2017</u> <u>01.11.2019</u>
22	Pallivasal KSEB/ Not Req./31.1.2007 2x30=60	<u>Kerala</u> <u>SR</u>	Civil, H&M works and E&M works	The work was awarded to M/s ESSAR – DEC – CPPL consortium as a single package and an agreement in this regard was executed on 31.01.2007. The contractual date of completion is 48 months i.e. 01.3.2011. E&M: Dongfang Electric Corporation, China (DEC)		242.96 Crs + US\$57 million	<u>31.01.2007</u> 01.03.2011
23	Thottiyar KSEB 1x30 + 1x10= 40 MW	<u>Kerala</u> <u>SR</u>	Civil works	Dam, Water Conductor System, power House	M/s Coastal Projects Private Ltd- Chongqing Joint Venture, Hyderabad E&M: Chongqing, China	44.23	<u>22.12.2008</u> 19.05.2012
			H&M works	Gates, erection, commissioning		24.09	<u>22.12.2008</u> 19.05.2012
			E&M works	Planning, Engineering, Manufacture, Supply, Erection, testing & commissioning		75.68	<u>22.12.2008</u> 19.05.2012
24	Vyasi UJVNL 2x60=120 MW	Uttra khand	Civil works	Intake, Dam half portion of HRT 1.35 km.	M/s. Gammon India Ltd.	317 Crs.	
				Half posrtion of HRT 1.35 km, Surge Shaft, Penstock, Powerhouse, TRC	M/s. NPCC Contract value	114.59 Crs.	
			E&M works	EPC contract for E&M Works	M/s. BHEL	125 Crs.	<u>26.03.2014</u>
25	Kundah Pumped Storage Phase -4 x125=125 MW	Tamil Nadu		Package-I: Power House HM works on the Downstream side of P/House (Phase-I).	M/s. Patel Engg., Mumbai - Package-I	346.48	<u>15.02.18</u> 15.02.22

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 (commencement)/ Completion
	Phase-I, II & III		Civil & HM Works	Package-II: Head Race Tunnel, Head Surge Shaft, Pressure Shafts, HM works on the Upstream side of P/House (Phase-I).	M/s. Kundah PSP Consortium - Package-II	321.34	<u>15.02.18</u> 15.11.21
			E & M Works	Phase -I, Package-III: 1x125 MW Phase-II: 2x125 MW. Phase-III: 1x125 MW. (Complete design, Engineering, 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)	M/s Megha Engineering Infrastructure Ltd,Hydrabad.	604.62 (Phase-I, Package-III) 756.54 (Phase-II) 401.85 (Phase-III)	<u>28.11.2019</u> 28.05.2023 <u>28.11.2019</u> 28.05.2023 <u>28.11.2019</u> 28.05.2023
C	Private Sector						
26	Sorang Himachal Sorang Power Pvt. Ltd 2x50=100 MW	<u>H.P.</u> <u>NR</u>	Civil works	Power house, and other works	M/s NCC-Maytas-SSJV Consortium	184	<u>06/2007</u>
			E&M works	Manufacturing., Supply, erection & commng. of TG units	M/s Voith Siemens, India	146	<u>06/2007</u>
27	Tidong-I M/s NSL Tidong Power Gen. Ltd. 2x50 = 100 MW	<u>HP</u> <u>NR</u>	Civil works	Construction of River diversion, barrage, intake, Desilting basins, storage reservoir & HRT (RD 0 m -905 m)	M/s SCL Infratech Ltd. Hyderabad	127.996	<u>07.11.2008</u> 06.11.2011
				Construction of HRT (RD 905 m-RD 5537 m)	M/s SCL Infratech Ltd. Hyderabad	83.327	<u>7.11.2008</u> 09/2014
				Construction of HRT (RD 5537 m -RD 8537 m)	M/s Himalaya Construction (P) Ltd.	31	<u>07.07.2011</u> 06.07.2015
				Construction of Surge Shaft, Pressure Shaft, Power House and Tail Race Channel	M/s Himalaya Construction (P) Ltd.	40	<u>07.07.2012</u> 06.06.2015
			E&M works	Supply, Installation, testing & commissioning of TG sets	M/s Alstom Projects, India	84	<u>28.02.2011</u> 27.05.2013
28	Tangnu Romai-I M/s Tangu Romai Power generation 2x22= 44 MW 30.11.2007 HPSEB	<u>HP</u> <u>NR</u>	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	<u>14.06.2010</u> 06/2014
			E&M works	Supply, installation, T&C of TG set, Switchyard equipment & associated auxiliaries	M/s Andritz Hydro, India	56	<u>17.04.2013</u> 16.07.2015
29	Bajoli Holi M/s GMR Bajoli Holi Hydro Power Pvt. Limited 31.12.2011	<u>HP</u> <u>NR</u>	Civil works	Lot-I & Lot-II All Major Civil Works	M/s Gammon India Ltd.	369 +400	<u>29.05.2013</u> 30.11.2017
			E&M works	E&M works	M/s. Alstom, India		
30	Phata Byung M/s Lanco	<u>Uttarakha</u> <u>nd</u>	Civil works	Dam, water conductor System, power House	Lanco Infratech Ltd.	206	<u>12.04.2008</u> 07/2012

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 (commencement)/ Completion
	06.10.2008 2x38 MW = 76 MW	NR	H&M works	Design, Engineering, Manufacture, Fabrication & Erection of all hydro- mechanical equipment	M/s CIMMCO	34	<u>12.04.2008</u> 08/2012
			E&M works	Manufacturing., Supply, erection & commng. of TG units	M/s Alstom Project, India	84	<u>12.04.2008</u> 08.2012
31	Maheshwar, SMHPCL 12 96/ 29.9.2006 (FC) 10x40= 400MW	M. P. WR	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	<u>22.02.1997</u> 03/2005
			E&M works	Manuf., Supply, erection & commng. of TG units	M/s BHEL	470.5 Crs. + USD \$ 11.74 M 18.05.2001	<u>25.06.2007</u> 10/ 2009
32	Bhasmey Gati Infrastructure 2x25.5 = 51 MW	Sikkim NER	Civil works	Dam, Tunnels , Power House, Surge Shaft, Pressure Shaft, Intake	M/s Simplex Infrastructure Ltd.	160	<u>12.04.2010</u> 11/2012
			H&M works	N.A.			
			E&M works	Manufacturing., Supply, erection & commng. of TG units	M/s Voith Hydro, India	93	<u>14.04.2010</u> 10/2012
33	Rangit-II Sikkim Hydro Power Limited 2x33= 66 MW	Sikkim NER	Civil &HM works	EPC Contract	M/s Coastal Project Limited	220.35	<u>13.12.2011</u> 23.10.2013
			E&M works		M/s. Gammon India Ltd.		<u>24.03.2012</u>
34	Rongnichu Madhya Bharat Power Corporation Ltd. 2x56.5= 113 MW	Sikkim NER	Civil works	Barrage, Desilting Basin, Tunnel , Power House, Surge Shaft, Pressure Shaft, Intake etc.	M/s SEW Infrastructure Ltd.	157.298	<u>07.04.2010</u> 05.10.2013
			E&M works	Manufacturing., Supply, erection & commng. of TG units	M/s Voith Hydro, India	101.100	28.09.2011
35	Panan Himagiri Hydro Energy Pvt. Ltd. 07.03.2011 4x75= 300 MW	Sikkim NER	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)	<u>22.02.2014</u> 21.02.2018 (48 months)
			E&M works	Manufacturing., Supply, erection & commng. of TG units	Under Award		
36	Kutehr M/s JSW Energy (Kutehr) Ltd. 3x80 = 240 MW 31.08.2010	HP NR	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 Lot-1D Design, fabrication , supply and erection of steel liner and pen stock.	-M/s Angelique-PCC Constorium. -M/s MF Bumi Geotech private ltd. -M/s P.E.S. Engineers Pvt Ltd. -M/s Greyhound Engineers India Private Ltd.	567.00 507.40 60.00 18.00	<u>20.10.2019</u> 19.06.2023 <u>25.11.2019</u> <u>19.05.2023</u> 19.09.2019 (LOI date) 19.09.2019 (LOI date)
			E&M works	Electro Mechanical works.	M/s Andritz Hydro Pvt. Ltd.	270.74	13.02.2020 (LOI date)

CHAPTER – 10

Status of financial closure of Under Execution Private Sector H. E. Projects

I. No.	Name of Project, State, Capacity, Date of TEC	Implementing Agency	Financial Closure Status	Remarks/ Constraints
Under Execution				
1.	Sorang H.P. 2x50 MW June, 2006	M/s Sorang Power Pvt. Ltd.	Financial closure achieved in June, 07.	
2.	Maheshwar, M.P., 10x40 MW, 30.12.96	Shree Maheshwar Hydel Power Corporation Ltd.	Financial closure achieved on 29.9.2006.	
3.*	Teesta-VI, Sikkim 4x125 MW 27.12.2006	M/s Lanco Energy Pvt. Ltd.	Financial closure achieved in July, 07.	
4.	Rangit-IV, Sikkim 3x40 MW 06.07.2007	M/s Jal Power corporation Ltd.	Financial closure achieved on 25.01.2010.	
5.	Tidong-I ,H.P. 100 MW 23.07.2007	M/s Nuziveedu Seeds	Financial closure achieved on 25.03.2010.	
6.	Tangu Romai, H.P. 2x22 MW 30.11.2007	Tangu Romai Power Gen. Pvt. Ltd.	Financial closure achieved on 22.01.2010.	
7.	Phata Byung Uttarakhand 2x38 MW 06.10.2008	M/s Lanco	Financial closure achieved on 25.07.2009.	
8.	Bhasmey, Sikkim 2x25.5= 51 MW Dec, 2008	M/s Gati Infrastructure	Financial closure achieved on 25.03.2010	
9.	Rangit Stage- II Sikkim 2x33= 66 MW 10.02.2010	M/s Sikkim Hydro Power Ventures Limited	Financial closure achieved on 15 th Jan, 2014, 31 st March 2015 (Revised).	
10.	Rongnichu, Sikkim 2x56.5= 113 01.10.2008	M/s Madhya Bharat Power Corporation Ltd.	Financial closure achieved. Loan agreement signed on 21.03.2011	
11.	Bajoli Holi, H.P. 3x60= 180 MW 30.12.2011	M/s GMR Bajoli Holi Hydro Power Pvt. Ltd.	Financial closure achieved. Loan agreement signed with IDBI Bank.	
12.*	Ratle, J&K 4x205+1x30= 850 MW	M/s GVK Ratle HEP Pvt. Ltd. (GRHEPPL)	Financial closure achieved.	
13.	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).	
14.	Kutehr, H.P. 3x80=240 MW	M/s JSW Energy (Kutehr) Ltd	Financial closure under Process.	

*Now these are CPUS's Projects

CHAPTER-11

DETAILS OF UNDER DEVELOPMENT HYDRO ELECTRIC PROJECTS (ABOVE 25 MW) HAVING TIME/COST OVERRUN-State Wise

Sl. No	Project Name/(I.C.)/ Executing Agency	Unit No.	Cap. (MW)	Org. Comm. Sched.	Ant. 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) (%)	Reasons for time and cost 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 12	80 80 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 2017-18 (Mar'18)	2024-25 2024-25 2024-25 2024-25 2024-25 2024-25 2024-25 2024-25 2024-25 2024-25 2024-25 2024-25 (Nov,25) (subject to re-start of works)	86 92	3013.68 (2010-11 PL) (Power Component)	5338.95 (2016-17 PL) (Power Component)	2325.27 (77.15)	➤ 'Works stalled since 19.07.2019 as APGENCO asked contractor M/s 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 on 14.12.2020. Agreement is to be concluded with new contactor M/s MEIL for commencement of Works. Works are yet to be started..
	Arunachal Pradesh									
2	Subansiri Lower (8x250 = 2000 MW) NHPC	1 2 3 4 5 6 7 8	250 250 250 250 250 250 250 250	2009-11 2009-11 2009-11 2009-11 2009-11 2009-11 2009-11 2009-11 (Sep'10)	2023-24 2023-24 2023-24 2023-24 2023-24 2023-24 2023-24 2023-24 (Aug'23)	156	6285.33 (12/02)	19992.43 (04/17)	13707.10 (218.08)	➤ Delay in transfer of forest land. ➤ Disruption of works by locals in Ar. Pradesh side. ➤ Slope failure in Power House in Jan, 2008. ➤ All works except safety works were stalled from December, 2011 to October, 2019 due to agitation launched by Anti Dam activists in Assam against construction of Project. Work restarted w.e.f. 15.10.2019.
	Himachal Pradesh									
3	Parbati - II (4x200 = 800 MW) NHPC	1 2 3 4	200 200 200 200	2009-10 2009-10 2009-10 2009-10 (Sept'09)	2022-23 2022-23 2022-23 2022-23 (July,22)	142	3919.59 (12/01)	9897.59 (04/18)	5978 (152.51)	➤ Delay in revised forest clearance. ➤ TBM suffered extensive damage due to heavy ingress of water and slush in TBM face in Nov, 2006. Due to poor geology. ➤ Flash flood in 2004,2005,2010 and 2011.

Sl. No	Project Name/(I.C.)/ Executing Agency	Unit No.	Cap. (MW)	Org. Comm. Sched.	Ant. 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) (%)	Reasons for time and cost over run
1	2	4	5	6	7	8	9	10	11	12
										➤ Contractual issues. ➤ Cash flow issues with civil contractors.
4	Uhl-III (3x33.33 = 100 MW) BVPCL	1 2 3	33.33 33.33 33.33	2006-07 2006-07 2006-07 (Mar'07)	2022-23 2022-23 2022-23 (Dec,22)	189 189 189	431.56 (09/02)	1281.52 (12/12)	849.96 (196.95)	➤ Delay in transfer of forest land. ➤ Delay in acquisition of private land ➤ Delay in transfer of quarry sites. ➤ Contract for construction of HRT rescinded twice i.e. during April, 2008 & July, 2010 due to slow progress and non-performance by the contractor. ➤ Poor geology in HRT. ➤ Leakage in Penstock in July,2018 and Rupture in May,2020
5	Shongtom Karcham (3x150 = 450 MW) HPPCL	1 2 3	150 150 150	2016-17 2016-17 2016-17 (Mar'17)	2024-25 2024-25 2024-25 (Mar,25)	92 94 96	2807.83 (07/11)	2807.83 (07/11)	Nil	➤ Shifting of Army Ammunition Depot. ➤ Disruption of works by local people.
6	Bajoli Holi 3x60= 180 MW M/s GMR Bajoli Holi	1 2 3	60 60 60	2018-19 2018-19 2018-19 (May'18)	2021-22 2021-22 2021-22 (June ,21)	37	1696.93 (12/11)	2689.00 (5/20)	992.07 (58.46)	➤ Slow progress due to poor approach to project components.
7	Sorang (2x50 = 100 MW), HSPPL	1 2	50 50	2011-12 2011-12 (Nov'11)	2021-22 2021-22 (June '21)	127	586.00 (04/2005)	586.00 (04/2005)	N.A.	➤ Poor geology. ➤ Penstock cracks / leakage during filling of Water conductor System in Nov '13 and Rupture in Nov-15 during trial run. ➤ Funds constraints with developer.
8*	Tangnu Romai-I (2x22 = 44 MW) TRPGPL	1 2	22 22	2014-15 2014-15 (Jun'14)	2024-25 2024-25 (subject to re-start of works(4 years))	129	255.00 (01/07)	641.89 (2018)	386.89 (151.72)	➤ Works are stalled since January, 2015 due to fund constraints with developer.

Sl. No	Project Name/(I.C.)/ Executing Agency	Unit No.	Cap. (MW)	Org. Comm. Sched.	Ant. 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) (%)	Reasons for time and cost over run
1	2	4	5	6	7	8	9	10	11	12
9	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	50 50	2013-14 2013-14 (Dec'13)	2022-23 2022-23 (Jun 22)	106	543.15 (06/18)	1472.00	928.85 (171.01)	➤ Delay in NOC by Projects affected Panchayats. ➤ Suspension of works by Govt. for one year. ➤ Funds constraints with the developer
10	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)	1798.13 (09/2011)	Nil	➤ Slow mobilization due to Covid-19 Lockdown.
	Govt. of UT of J&K									
11	Pakal Dul (4x250= 1000 MW) CVPPL	1 2 3 4	250 250 250 250	2020-21 2020-21 2020-21 2020-21 (Apr'20)	2025-26 2025-26 2025-26 2025-26 (July'25)	63	8112.12 (03/13)	8112.12 (03/13)	Nil	➤ Delay in award of works due to higher bids.
12	Parnai 3x12.5= 37.5 MW JKSPDC	1 2 3	12.5 12.5 12.5	2017-18 2017-18 2017-18 (Jan'18)	2022-23 2022-23 2022-23 (Mar,23)	62	640.86 (Completion cost)	640.86 (Completion cost)	Nil	➤ Delay in Land acquisition.
13*	Lower Kalnai 2x24= 48 MW JKSPDC	1 2	24 24	2017-18 2017-18 (Sep'17)	2025-26 2025-26 (subject to re-start of works (4 years))	102	576.87 (12/12) (Completion cost)	576.87 (12/12) (Completion cost)	Nil	➤ 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 re-tendering for selection of EPC contractor is under process.
14	Kiru (4x156=624 MW) CVPPL	1 2 3 4	156 156 156 156	2023-24 2023-24 2023-24 2023-24 (Aug,23)	2024-25 2024-25 2024-25 2024-25 (Aug,24)	12	4287.59 (09/14)	4287.59 (09/14)	Nil	➤ Slow mobilization due to Covid-19 lockdown
15*	Ratle (4x205+1x30) = 850 MW	1 2 3	205 205 205	2017-18 2017-18 2017-18	2025-26 2025-26 2025-26	96	5281.94 (11/18)	5281.94 (11/18)	NIL	➤ Project was stalled since 11.07.2014 due to various issues viz. R&R issues, Local issues, Law & order problem etc. Earlier, it was under execution by private sector

Sl. No	Project Name/(I.C.)/ Executing Agency	Unit No.	Cap. (MW)	Org. Comm. Sched.	Ant. 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) (%)	Reasons for time and cost over run
1	2	4	5	6	7	8	9	10	11	12
	RHPPL / NHPC	4 5	205 30	2017-18 2017-18 (Jan,18)	2025-26 2025-26 (subject to re-start of works(5 years))					developer and some works already have been done. There is no progress since 11th July, 2014. JV of Govt. of UT of J&K and NHPC has been formed. CCEA clearance received. Award of works is to be done.
	Kerala									
16	Pallivasal 2x30 = 60 MW KSEB	1 2	30 30	2010-11 2010-11 (Mar'11)	2021-22 2021-22 (Dec,21)	129	222.00 (1999)	550.00 (2018)	328.00 (147.74)	➤ Delay in land acquisition. ➤ Poor geology strata in HRT. ➤ 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.
17	Thottiyar (1x30+1x10)= 40MW KSEB	1 2	30 10	2012-13 2012-13 (Apr'12)	2021-22 2021-22 (Dec,21)	116	136.79 (2007)	280 (2018)	143.21 (104.69)	➤ Land acquisition issue. ➤ The works of weir and approach channel stopped from 2010 to 2012 by local people. ➤ The work stopped by Court from 12.12.2012 to April-2013. ➤ Financial crunch with contractor leading to foreclosure of contract in April,2017 and balance works re-awarded in January, 2018.
	Madhya Pradesh									
18*	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 2001-02 (Mar'02)	2023-24 (subject to re-start of works(Two years))	264	1569.27 (96-97)	8121.00 (2016-17)	6551.73 (417.50)	➤ 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.
	Maharashtra									
19*	Koyna Left Bank PSS 2x40 = 80 MW WRD, Maha	1 2	40 40	2014-15 2014-15 (Oct'14)	2025-26 (subject to re-start of works (4 years))	137	245.02 (1999)	1403.77 (2014)	1158.75 (472.92)	➤ Project stalled since July, 2015. The current expenditure on the project has already reached to almost original administrative approved cost level. Proposal for revival of the project is submitted to the Govt. of Maharashtra.
	Punjab									

Sl. No	Project Name/(I.C.)/ Executing Agency	Unit No.	Cap. (MW)	Org. Comm. Sched.	Ant. 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) (%)	Reasons for time and cost over run
1	2	4	5	6	7	8	9	10	11	12
20	Shahpurkandi 3x33+3x33+1x8 =206 MW, Irrigation Deptt. &PSPCL	1 2 3 4 5 6 7	33 33 33 33 33 33 8	2015-16 2015-16 2015-16 2015-16 2015-16 2015-16 2015-16	2024-25 2024-25 2024-25 2024-25 2024-25 2024-25 2024-25 (Dec, 24)	105 105	1835.50 (04/08) (Power Component)	1938.74 (02/18) (Power Component)	103.24 (5.62)	➤ Works of Dam stopped since 29.08.2014 due to inter-state dispute between states of J&K & Punjab on sharing of waters of river Ravi and Tariff.
	Sikkim									
21	Teesta Stage VI (4x125 = 500 MW) Lanco Teesta Hydro Power Ltd. (LTHPL) (Project taken over by NHPC w.e.f. 08.03.2019)	1 2 3 4	125 125 125 125	2012-13 2012-13 2012-13 2012-13 (Jul'12)	2023-24 2023-24 2023-24 2023-24 (Mar,24)	72	5748.04 (07/2018)	5748.04 (07/2018)	NIL	➤ Poor geology. ➤ Land acquisition. ➤ Contractual issues ➤ Funds constraints with developer (Private) and stalled from April, 2014 to October, 2019 ➤ 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. ➤ Taking over along with all assets and documents as 'Going concern' completed on 09.10.2019.
22*	Bhasmey (2x25.5 =51 MW) Gati Infrastructure	1 2	25.5 25.5	2012-13 2012-13 (Jun'12)	2024-25 2024-25 (subject to re-start of works(3 years))	153	408.50 (2012-13)	746.01 (03/18)	337.51 (82.62)	➤ Works are stalled since Sept., 2016 due to funds constraints with developer ➤ .
23*	Rangit-IV HE Project (3X40 = 120 MW) JPCL	1 2 3	40 40 40	2011-12 2011-12 2011-12 (Jan'12)	2024-25 2024-25 2024-25 (subject to re-start of works(3-½ year)	158	726.17 (2011-12)	1692.60 (06/16)	966.43 (133.08)	Project is stalled since October, 2013 due to funds constraints with the developer. The project is under NCLT process since 9th April, 2019. NHPC submitted EOI on 08.07.2019 and was shortlisted under final list of Prospective Resolution Applicants on dated 23.08.2019. The Resolution Plan submitted by NHPC on 04.12.2019. The Resolution Plan Approval Application was listed for hearing on 17.02.2020 before NCLT, Hyderabad ("Tribunal"). Final hearing was held on 31.07.2020. Investment approval for acquisition of M/s Jal Power Corporation Ltd. and construction of balance works

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1	2	4	5	6	7	8	9	10	11	12
										of Rangit-IV by NHPC was conveyed to NHPC by MoP on 30.03.2021. The project has been awarded to NHPC and Award of works is under process.
24*	Rangit-II 2x33= 66 MW Sikkim Hydro Power Ltd.	1 2	33 33	2015-16 2015-16 (Apr'15)	2024-25 2024-25 (subject to re-start of works(2-½ year)	119	496.44 (2011-12)	496.44 (2011-12)	Nil	➤ Works are stalled since December, 2017 due to funds constraints with developer. Project is in NCLT since 30.07.2020.
25	Rongnichu (2x56.5 =113 MW) Madhya Bharat Pvt. Ltd.	1 2	56.5 56.5	2014-15 2014-15 (Jul'14)	2021-22 2021-22 (May,21)	82	491.32 (2005)	1453.34 (2018)	962.02 (195.80)	➤ Land Acquisition ➤ Poor geology.
26*	Panan 4x75= 300 MW Himagiri Hydro Energy Pvt. Ltd.	1 2 3 4	75 75 75 75	2018-19 2018-19 2018-19 2018-19	2025-26 2025-26 2025-26 2025-26 (subject to re-start of works(4-½ years)	84	1833.05 (2009)	2671.00 (2018)	837.95 (45.71)	➤ Issue of construction of bridge on Mantham Lake for accessebility of site is under discussion with the State Govt of Sikkim..
	Tamil Nadu									
27	Kundah PSP (Phase-I, Phase-II & Phase-III) (4x125=500 MW) TANGEDCO	1 2 3 4	125 125 125 125	2021-22 2021-22 2021-22 2021-22 (Aug,21)	2023-24 2023-24 2023-24 2023-24 (May,23)	21	1216.59 (2007-08)	1831.29 (2014)	614..7 (50.52)	➤ Civil & HM works have been taken up from 05/2018 only
	Uttartakhand									
28*	Lata Tapovan (3x57 = 171 MW) NTPC	1 2 3	57 57 57	2017-18 2017-18 2017-18 (Aug'17)	2025-26 2025-26 2025-26 (subject to re-start of works(4 years))	103	1527.00 (07/12)	would be calculated when works re-start.	NA	Subsequent to the Uttarakhand disaster in June, 2013, Hon'ble Supreme Court gave the judgment on 13.08.2013 that "MoEF as well as State of Uttarakhand not to grant any further environmental clearance or forest clearance for any hydroelectric power project in the State of Uttarakhand, until further orders". Therefore, the construction work stopped .The matter is sub-judice.
29	Tapovan Vishnughad	1	130	2012-13	2022-23		2978.48	5867.38	2888.90	➤ On 07.02.2021, there was a sudden flash flood in Dhauli

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1	2	4	5	6	7	8	9	10	11	12
	(4x130 = 520 MW) NTPC	2 3 4	130 130 130	2012-13 2012-13 2012-13 (Mar'13)	2022-23 2022-23 2022-23 (Dec'23)	129	(03/04)	(04/19)	(96.99)	Ganga river due to an avalanche resulting in part damage to NTPC hydro power plant. A detailed analysis is to be done to assess the extent of physical and financial damage to the project. A team of Expert(TOE) from CWC, CEA, GSI, CSMRS and NTPC have been constituted for preparing action plan for restoration of project.
30	Tehri PSS (4x250 = 1000 MW) THDC	1 2 3 4	250 250 250 250	2010-11 2010-11 2010-11 2010-11 (July'10)	2022-23 2022-23 2022-23 2022-23 (Dec'22)	143 145 147 149	1657.60 (12/05)	5024.35 (02/19)	3366.75 (203.10)	➤ Poor geology. ➤ Local agitation at Asena Quarry / muck disposal area. ➤ Revision of Lay out of machine hall due to poor geology. ➤ Funds constraints with contractor.
31	Vishnugad Pipalkoti (4x111 = 444 MW) THDC	1 2 3 4	111 111 111 111	2013-14 2013-14 2013-14 2013-14 (Jun'13)	2023-24 2023-24 2023-24 2023-24 (Dec'23)	126	2491.58 (03/08)	4397.80 (02/19)	1906.22 (76.50)	➤ 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. ➤ Disruption of works by local people. ➤ Cash flow problem with contractor.
32	Naitwar Mori (2x30 = 60 MW), SJVNL	1 2	30 30	2021-22 2021-22 (Dec'21)	2022-23 2022-23 (June'22)	6	648.33 (10/2016)	648.33 (10/2016)	Nil	➤ COVID pandemic
										➤
33	Vyasi 2x60=120 MW, UJVNL	1 2	60 60	2014-15 2014-15 (Dec'14)	2022-23 2022-23 (Apr,22)	88	936.23 (02/10)	1581.01 (2019)	644.78 (68.86)	➤ Delay in award of works. ➤ Agitation by Local people.
34*	Phata Byung (2x38 = 76 MW), LANCO	1 2	38 38	2012-13 2012-13 (Jun'12)	2024-25 2024-25 (subject to re-start of works(3 years))	153	520.00 (2013-14)	1132 (09/16)	612 (117.69)	➤ 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 has initiated the process for inviting prospective investors for the project.
	West Bengal									

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1	2	4	5	6	7	8	9	10	11	12
35	Rammam-III (3x40= 120 MW)	1 2 3	40 40 40	2019-20 2019-20 2019-20 (Sep'19)	2022-23 2022-23 2022-23 (Nov,22)	} 38	1381.84 (09/14)	1381.84 (09/14)	Nil	➤ Delay in getting permission for tree felling from Govt. of West Bengal for Access road from Adit-1 to Adit-2. ➤ Cash flow issues with civil contractors. ➤ Strike / bandh during Gorkhaland agitation in 2017.

Note:- It is to mention that cost overrun has been calculated as the difference between the Latest Cost (provided by the developer to CEA alongwith 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.

* Construction is held-up.