

CENTRAL ELECTRICITY AUTHORITY
(HYDRO WING)



**PROGRESS OF
ON-GOING HYDRO ELECTRIC PROJECTS**

(In fulfilment of CEA's obligation under Electricity Act, 2003)

QUARTERLY REVIEW

NO. 85

Apr - June, 2016

**HYDRO PROJECT MONITORING DIVISION
NEW DELHI
August – 2016**

I N D E X

Chapter	Contents	Page No.
	Preface	1-2
	Executive Summary	3-4
1.	Milestones achieved during the quarter Apr - June, 2016	5
2.	Plan wise hydro capacity targets/ achievements from 4 th plan onwards.	6
2.1	Year/Plan wise hydro capacity in the country.	7-8
2.2	Hydro capacity addition during 12 th Plan- As Plan progress	9
2.2a	Hydro Capacity addition during 2012-13	10
2.2b	Hydro Capacity addition during 2013-14	11
2.2c	Hydro Capacity addition during 2014-15	12
2.2d	Hydro Capacity addition during 2015-16	13
3.	Growth of installed capacity.	14
3.1	Growth of hydro capacity.	15
4.	Trend of hydro capacity addition. (hydro and thermal mix)	16
5.	List of sanctioned H.E.Projects for benefits during 12 th Plan & beyond.	17-18
6.	Status of sanctioned H.E.Projects for benefits during 12 th Plan & beyond.	19-40
7.	Financial status of sanctioned H.E.Projects for 12 th Plan & beyond.	41-42
8.	Status of environment & forest clearance of sanctioned H.E.Projects for 12 th Plan & beyond.	43
9.	Status of Award of civil package for under execution H.E.Projects for 12 th Plan & beyond.	44
9.1	Summary of ordering status of TG sets of under execution H.E. Projects for 12 th Plan & beyond.	45
9.2	Status of ordering status of TG sets of under execution H.E.Projects for 12 th Plan & beyond.	46-47
9.3	12 th Plan & beyond Projects- Ordering status of various packages	48-60
10.	Status of financial closure of Private Sector projects.	61-62
11.	Details of Under Construction Projects having Time/Cost over-run	63-69

PREFACE

Present Review

This quarterly review covers the period from **Apr, 2016 to June, 2016** and is **85th** in the series. 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. The review covers HE projects under construction likely to give benefits in 12th Plan & beyond.

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 equipments from time to time.

Milestone Achieved During April, 2016 to June, 2016.

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

Sanctioned Projects for 12th Plan & Beyond

A list of sanctioned HE projects for 12th plan and beyond is indicated in Chapter 5.

Status of Sanctioned Projects for 12th Plan & Beyond

Broad present status of sanctioned HE projects for 12th plan and beyond is given in Chapter 6.

Financial Status of Projects for 12th Plan & Beyond

Financial status of HE projects supplied by project authorities (unaudited) 12th plan and beyond is given in Chapter 7.

Status of Environment & Forest Clearances of H.E. Projects for 12th Plan & Beyond

The status of Environmental & Forest clearance of HE projects for 12th plan and beyond 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.

Details of Award of various packages

The details of Civil package, H&M works and E&M package of HE projects for benefits during 12th plan and beyond has been given in Chapter 9.3.

Status of Financial closure of Private Sector Projects

Details of financial closure of Private Sector HE projects for 12th Plan and beyond 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 for benefits during 12th plan and beyond 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 Mix as on 30.06.2016

Hydro:	42,848.43 MW	(16.46%)
Thermal:	2,11,640.40 MW	(81.32%)
Nuclear:	5,780.00 MW	(02.22%)
Total:	2,60,268.83 MW	

Hydro Capacity Under Execution (As on 30.06.2016): A hydro capacity of **13,437 MW** is under execution to give benefits during remaining period of 12th Plan & beyond. Sector wise summary is given as under:-

Sector	Capacity (MW)
Central	6235
State	3847
Private	3355
Total:	13,437 MW

12th Plan Hydro Capacity Addition as Plan Progress:-

Hydro Capacity Addition for the Year 2012-13: Hydro Capacity Addition Monitorable Targets for the Year 2012-13 was **802 MW** (645 MW in Central Sector, 87 MW in State Sector, and 70 MW in Private Sector.). A Capacity of **501 MW** (374 MW in Central Sector, 57 MW in State Sector and 70 MW in Private Sector) has been achieved during 2012-13. Project-wise details are given in Chapter 2.2a.

Hydro Capacity Addition for the Year 2013-14: Hydro Capacity Addition Monitorable Targets for the Year 2013-14 was **1198 MW** (914 MW in Central Sector, 85 MW in State Sector and 199 MW in Private Sector.). A Capacity of **1058 MW** (914 MW in Central Sector, 45 MW in State Sector and 99 MW in Private Sector) has been achieved during the year 2013-14. Project-wise details are given in Chapter 2.2b.

Hydro Capacity Addition for the Year 2014-15: Hydro Capacity Addition Monitorable Targets for the Year 2014-15 was **842 MW** (336 MW in Central Sector, 210 MW in State Sector and 296 MW in Private Sector.). A Capacity of **736 MW** in Central Sector has been achieved during the year 2014-15. Project-wise details are given in Chapter 2.2c.

Hydro Capacity Addition for the Year 2015-16: Hydro Capacity Addition Monitorable Targets for the Year 2015-16 was **1691 MW** (**590 MW** in Central Sector, **575 MW** in State Sector and **526 MW** in Private Sector) A Capacity of **1516 MW** (**480 MW** in Central Sector **610 MW** in State Sector and **426 MW** in Private Sector) has been achieved during the year 2015-16. Project-wise details are given in Chapter 2.2d.

Hydro Capacity Addition for the Year 2016-17: Hydro Capacity Addition Monitorable Targets for the Year 2016-17 is **1714 MW** (**490 MW** in Central Sector, **995 MW** in State Sector and **229 MW** in Private Sector). A Capacity of **65 MW** in State Sector has been achieved during the year 2016-17 up to **30.06.2016**. Project-wise details are given as under:-

Hydro Projects Monitorable Target for 2016-17

Sl. No.	Particular	Unit Nos.	Cap. (MW)	Commissioning as programmed	Actual(A)/ Anticipated	Remarks
A.	Central Sector					
1	Teesta Low Dam IV NHPC, West Bengal 4x40 = 160 MW	Unit # 3 Unit # 4	40 40	6/16 9/16	7/16 8/16	

2	Kameng NEEPCO Arunachal Pradesh 4x150= 600 MW	Unit # 1 Unit # 2	150 150	2/17 3/17	3/17 3/17	Critical
3	Pare NEEPCO, Arunachal Pradesh 2x55=110 MW	Unit # 1 Unit # 2	55 55	12/16 1/17	3/17 3/17	Critical
	Sub- total (C.S.):		490			
B.	State Sector					
4	Nagarjuna Sagar TR APGENCO, AP 2x25=50 MW	Unit # 1 Unit # 2	25 25	8/16 8/16	10/16 10/16	
5	Kashang – I HPPCL, H.P. 1x65=65 MW	Unit # 1	65	5/16	27.06.2016(A)	Commissioned
6	Sainj HPPCL, H.P. 2X50=100 MW	Unit # 1 Unit # 2	50 50	12/16 1/17	12/16 01/17	
7	Lower Jurala TSGENCO, Telangana 6x40= 240 MW	Unit # 5 Unit # 6	40 40	9/16 11/16	08/16 09/16	
8	Pulichintala TSGENCO, Telengana 4x30= 120 MW	Unit # 1 Unit # 2	30 30	8/16 12/16	10/16 12/16	
9	New Umtru MePGCL; Meghalaya 2x20= 40 MW	Unit # 1 Unit # 2	20 20	11/16 12/16	02/17 03/17	Critical
10	Teesta- III (*) Teesta Urja Ltd.; Sikkim 6x200= 1200 MW	Unit # 1 Unit # 2 Unit # 3	200 200 200	12/16 1/17 2/17	12/16 01/17 02/17	
	Sub- total (S.S.):		995			
C.	Private Sector					
11	Chanju-I (#) IA Energy ; H.P. 3x12= 36 MW	Unit # 1 Unit # 2 Unit # 3	12 12 12	7/16 9/16 12/16	08/16 09/16 12/16	
12	Dikchu (#) Sneha Kinetic Power Projects (P).Ltd., Sikkim 3x32= 96 MW	Unit # 1 Unit # 2 Unit # 3	32 32 32	7/16 8/16 9/16	01/17 02/17 03/17	
13	Tashiding (#) Shiga Energy Pvt. Ltd. Sikkim 2x48.5= 97 MW	Unit # 1 Unit # 2	48.5 48.5	1/17 2/17	01/17 02/17	
	Sub- total (P.S.):		229			
	Total C.S.+S.S.+P.S.)		1714			
	# Projects outside 12 th plan but likely to be commissioned in 2016-17; (*) w.e.f. 6-8-15, Teesta Urja Ltd. is a Govt. of Sikkim Enterprise, hence in State Sector.					

CHAPTER 1

Milestones achieved during the Quarter Apr - June, 2016

Units Commissioned:

No.	Particulars	Sector	Unit No.	Rating (MW)	Date Commissioned
1.	Kashang -I (HPPCL) 1x65= 65 MW	State	1	65	27.06.2016
TOTAL				65 MW	

CHAPTER 2

Plan wise Hydro capacity Target Vs Achievement since 4th Plan

Plan	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	550.90	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	445.50	44.26
Annual Plan (1991-92)	754.30	436.00	57.80
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	3876 (up to 30.06.16)	35.57 (up to 30.06.16)

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	108.54	
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	<u>2306.00</u>		
	Total :	14393	<u>7886.00</u>	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	<u>1423</u>		
	Total :	15627	<u>5544.00</u>	35.48	
12th Five Year Plan (1.4.12 to 31.03.17)					
62	2012-13	802	501	62.47	
63	2013-14	1198	1058	88.31	
64	2014-15	842	736	87.41	
65	2015-16	1691	1516	89.65	
66	2016-17	1714	65	3.79	

(up to 30.06.16)

Note: Figures from 1951 to 1984-85 indicate uprated/derated capacities.

Chapter 2.2

Hydro Electric Projects for Benefits During 12th Plan- Plan Progress

S. No.	Project Name	State	Developer	I. C. (No. x MW)	Year wise Cap. Addition					Slipping	Total
					2012-13	2013-14	2014-15	2015-16	2016-17		
A.	Commissioned										
	Central Sector										
1	Chamera-III	HP	NHPC	3x77	231						231
2	Chutak	J&K	NHPC	4x11	44						44
3	Teesta Low Dam- III	WB	NHPC	4x33	99	33					132
4	Uri-II	J&K	NHPC	4x60		240					240
5	Nimoo Bazgo	J&K	NHPC	3x15		45					45
6	Parabati- III	HP	NHPC	4x130		390	130				520
7	Rampur HEP	H.P.	SJVNL	6x68.67		206	206				412
8	Kol Dam HEP	H.P.	NTPC	4x200			400	400			800
9a	Teesta Low Dam- IV	WB	NHPC	4x40				80			80
	Sub Total: Central Sector				374	914	736	480			2504
	State Sector										
10	Bhawani Barrage-II	Tamil Nadu	TANGEDCO	2x15		30					30
11	Bhawani Barrage-III	Tamil Nadu	TANGEDCO	2x15	15	15					30
12	Myntdu-1 addl.Unit	Meghalaya	MePGCL	1x42	42						42
13	Baglihar-II	J&K	JKPDC	3x150				450			450
14a	Lower Jurala	Telangana	TSGENCO	6x40				160			160
15	Kashang - I	H.P.	HPPCL	1x65					65		65
	Sub Total: State Sector				57	45		610	65		777
	Private Sector										
16	Budhil	HP	LANCO	2x35	70						70
17	Chujachen	SIKKIM	GATI	2x49.5		99					99
18	Srinagar	Uttarakhand	AHPCo. Ltd.	4x82.5				330			330
19	Jorethang Loop	Sikkim	DANS Pvt. Ltd	2x48				96			96
	Sub Total: Private Sector				70	99		426			595
	Sub Total 'A': Commissioned				501	1058	736	1516	65		3876
B.	Under Construction										
	Central Sector										
20	Pare HEP	Ar. P	NEEPCO	2x55					110		110
21	Kameng HEP (300 MW-BE)	Ar. P	NEEPCO	4x150					600		600
22	Subansiri Lower HEP	Ar. P	NHPC	8x250						1000	1000
23	Parbati-II HEP	H.P.	NHPC	4x200					800		800
24	Kishan Ganga (BE)	J&K	NHPC	3x110				330			330
25	Tuirial	Mizoram	NEEPCO	2x30					60		60
26	Tapovan Vishnugad	Uttarakhand	NTPC	4x130					520		520
9b	Teesta Low Dam- IV	WB	NHPC	4x40					80		80
	Sub Total: Central Sector					0	0	0	1120	2380	3500
	State Sector										
14b	Lower Jurala	Telangana	TSGENCO	6x40					80		80
27	Pulichintala	Telangana	TSGENCO	4x30					60	60	120
28	Nagarjuna Sagar TR	AP	APGENCO	2x25					50		50
29	Uhl-III	H.P.	BVPC	3x33.33						100	100
30	Sawra Kuddu	H.P.	HPPCL	3x37						111	111
31	Kashang II & III	H.P.	HPPCL	2x65						130	130
32	Sainj	H.P.	HPPCL	2x50					100		100
33	Thottiar	Kerala	KSEB	1x30 + 1x10						40	40
34	Pallivasal	Kerala	KSEB	2x30						60	60
35	New Umtru	Meghalaya	MePGCL	2x20					40		40
36	Teesta-III (600 MW- BE)	Sikkim	Teesta Urja (*)	6x200				0	1200		1200
	Sub Total: State Sector					0	0	0	1530	501	2031
	Private Sector										
37	Tidong-I	H.P.	N S L Tidong Power Gen. Ltd	2x50						100	100
38	Sorang	H.P.	Himachal Sorang Power Pvt. Ltd	2x50						100	100
39	Tangnu Romai-I	H.P.	Tangnu Romai Power Gen. Ltd	2x22						44	44
40	Maheshwar	MP	SMHPCL	10x40				0		400	400
41	Bhamshey	Sikkim	GATI	2x25.5						51	51
42	Rangit-IV	Sikkim	Jal Power	3x40						120	120
43	Teesta-VI	Sikkim	LANCO	4x125						500	500
44	Singoli Bhatwari	Uttarakhand	L & T	3x33						99	99
45	Phata Byung	Uttarakhand	LANCO	2x38						76	76
	Sub Total: Private Sector					0	0	0	0	1490	1490
	Sub Total 'B': Under Construction					0	0	0	2650	4371	7021
	Total- 12th Plan (A + B)				501	1058	736	1516	2715	4371	10897
	Likely in 12th Plan						6526				

(*) w.e.f. 6-8-15, Teesta Urja Ltd. is a Govt. Of Sikkim Enterprise

Note: (BE)- Best efforts projects totalling to 1230 MW.

229 MW Capacity likely to advance (Out side the 12th Plan)

Chanju - I (3x12= 36 MW) + Dikchu (3x32=96 MW) + Tashiding (2x48.5=97 MW)=229 MW

Chapter- 2.2a

Hydro Capacity Addition during the Year 2012-13

S I. N o.	Particular	Unit Nos.	Target (MW)	Commissioning as programmed	Actual (MW)	Actual (A)/ Anticipated	Remarks
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)	
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. - Commissioned in 2013-14.
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)	
4	Parbati-III NHPC, HP 4x130= 520 MW	1	130	Mar-13	-	Slipped	- Non-availability of Transmission system. - Completion of Surge shaft gates. -Commissioned in 2013-14
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. - Commissioned in 2013-14
6	Bhawani Kattalai -III TANGEDCO, T.N 2x15 = 30 MW	1	15	Oct-12	15	08.12.12(A)	
7	Myntdu, MeECL, Meghalaya 3x42 = 126 MW	3	42	Mar-13	42	07.03.2013(A)	
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)	
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)	
Sub- total : Outside			-		99		
Total: 2012-13			802		501		

Chapter- 2.2b
Hydro Capacity Addition during the Year 2013-14

Sl. No.	Particular	Unit Nos.	Capacity (MW)		Commissioning as per program	Actual (A)/ Anticipated	Remarks
			Target	Actual			
A. Central Sector							
1	Teesta Low Dam-III NHPC, WB. 4x33= 132 MW	Unit # 4	33	33	April-13	01.04.2013(A)	
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)	
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)	
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)	
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)	
	Sub- total (A):		914	914			
B. State Sector							
6.	Lower Jurala APGENCO, A.P. (6x40=240 MW)	Unit # 1	40	-	Dec-13	2014-15 (July-2014)	-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. -Commissioned dur. 2015-16.
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)	
8	Bhawani Kattalai -III TANGEDCO, T.N Tamil Nadu, 2x15 = 30 MW	Unit # 2	15	15	June -13	25.09.2013 (A)	
	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-13 Dec-13	2015-16 2015-16	- Commissioning delayed, cracks developed in penstock during filling of water conductor system in 1 st week of Nov-2013. - Slipping from 12 th Plan.
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)	
	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- 2.2c

Hydro Capacity Addition during the Year 2014-15

Sl. No.	Particular	Unit Nos.	Capacity (MW)		Commissioning as per program	Actual (A)/ Anticipated	Remarks
			Target	Actual			
A. Central Sector							
1	Parbati-III NHPC, HP 4x130= 520 MW	Unit # 4	130	130	Aug- 14	22.05.2014 (A)	
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)	
Out side the Programme							
3	Koldam NTPC, H.P. 4x200 = 800 MW	Unit # 1 Unit # 2		200 200	Mar-15 Mar-15	31.03.2015 (A) 30.03.2015 (A)	
	Sub- total (A):		336	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	2015-16 2015-16 2015-16 2015-16	- Slipped due to flooding of Power House on 30.07.2014 during synchronization process for Unit # 1 to Unit# 3. - Commissioned during 2015-16.
5	Nagarjuna Sagar APGENCO, A.P. 2x25= 50 MW	Unit # 1 Unit # 2	25 25	0 0	Sep-14 Dec-14	2015-16 2015-16	- 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	2015-16	- Slipped due to non-completion of HRT. - Commissioned during 2015-16.
7	Teesta-III Teesta Urja, Sikkim 6x200= 1200 MW	Unit # 6	200	0		2016-17	- Slipped due to Financial crunch with the Developer. - Likely to be Commissioned during 2016-17.
	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- 2.2d
Hydro Capacity Addition during the Year 2015-16

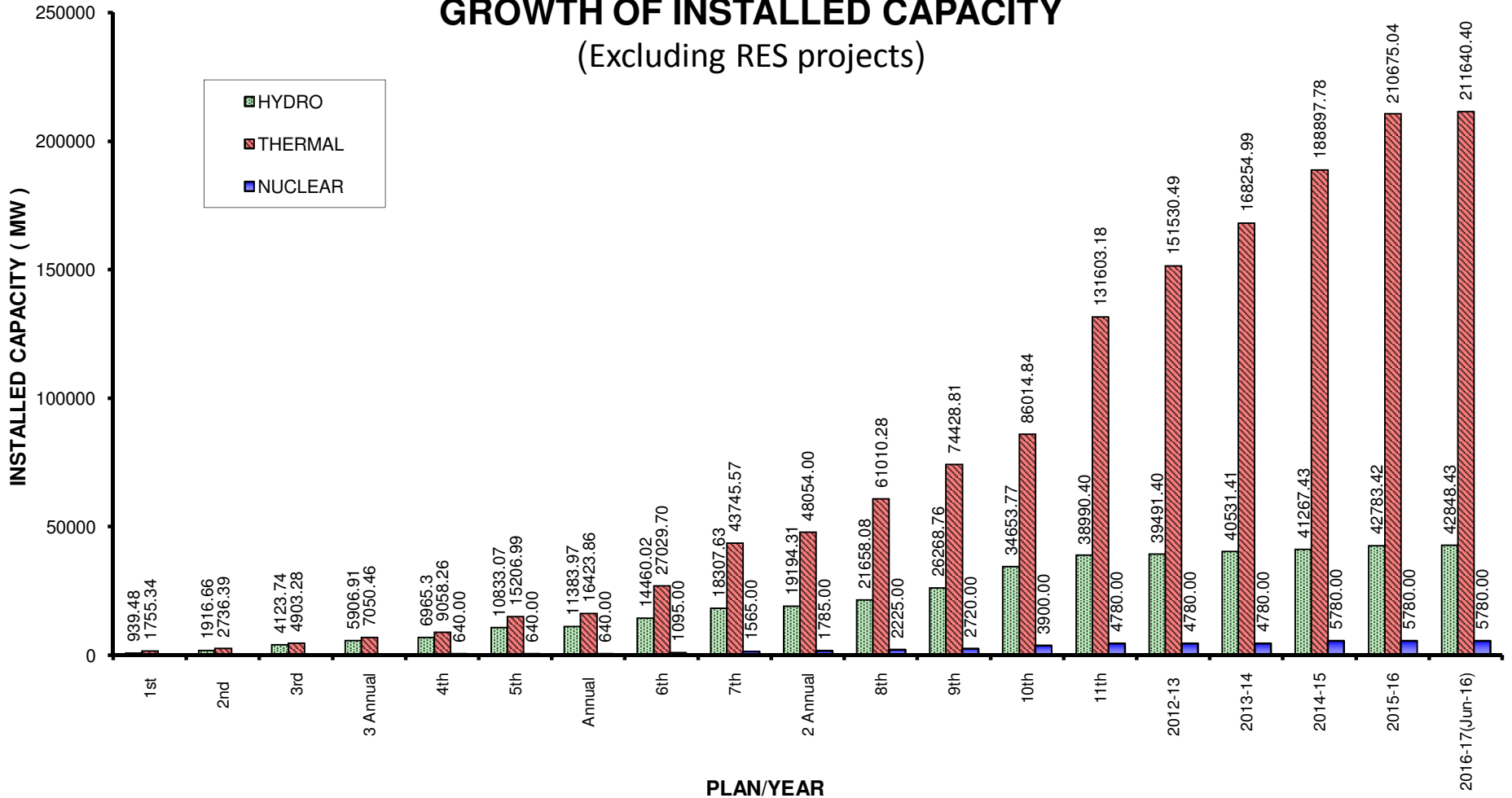
Sl. No.	Particular	Unit Nos.	Target	Actual	Commissioning as programmed	Actual(A)/ Anticipated	Remarks
			Capacity (MW)				
A. Central Sector							
1	Koldam NTPC, HP 4x200= 800 MW	Unit # 3	200	200	4/15	10.04.2015(A)	Commissioned
		Unit # 4	200	200	5/15	12.06.2015(A)	
2	Teesta Low Dam – IV , NHPC, W.B 4x40 = 160 MW	Unit # 1	40	40	2/16	14.02.2016	Commissioned
		Unit # 2	40	40	3/16	16.03.2016	
3	Pare NEEPCO, Arunachal Pradesh 2x55=110 MW	Unit # 1	55		3/16		Slipped to 2016-17 due to inundation of dam area with flood water after overtopping of Cofferdam in June'15 and many times thereafter.
		Unit # 2	55		3/16		
	Sub- total (A):		590	480			Achieved:-480 MW
B. State Sector							
4	Baglihar - II JKPDC, J&K 3x150= 450 MW	Unit # 1	150	150	9/15	05.09.2015(A)	Commissioned
		Unit # 2	150	150	9/15	29.09.2015(A)	
		Unit # 3	150	150	2016-17	26.10.2015(A)	
5	Kashang – I HPPCL, H.P. 1x65=65 MW	Unit # 1	65		3/16	3/16	Slipped to 2016-17 due to non-completion of E&M works.
6	Lower Jurala TSGENCO, Telangana 6x40= 240 MW	Unit # 1	40	40	7/15	14.10.2015(A)	Commissioned
		Unit # 2	40	40	8/15	30.09.2015(A)	
		Unit # 3	40	40	9/15	04.01.2016(A)	
		Unit # 4	40	40	10/15	05.03.2016(A)	
7	Nagarjuna Sagar TR APGENCO, AP 2x25=50 MW	Unit # 1	25		7/15	Likely to slip to 2016-17	Unit 1 & 2 could not be commissioned due to non-availability of rated discharge.
		Unit # 2	25		7/15		
	Sub- total (B):		575	610			Achieved:-610 MW
C. Private Sector							
8	Sorang HSPCL, H.P. 2x50 = 100 MW	Unit # 1	50		6/15	2016-17	Unit # 1 synchronized , but could not be commissioned due to non-availability of rated discharge. Penstock ruptured on 18.11.2015. Slipping to 2017-18.
		Unit # 2	50		6/15	2016-17	
9	Srinagar AHPCL, Uttarakhand 4x82.5=330	Unit # 1	82.5	82.5	4/15	10.04.2015(A)	Commissioned
		Unit # 2	82.5	82.5	4/15	08.06.2015(A)	
		Unit # 3	82.5	82.5	5/15	20.04.2015(A)	
		Unit # 4	82.5	82.5	6/15	03.06.2015(A)	
10	Jorethang Loop DANS Pvt. Ltd., Sikkim 2x48= 96 MW	Unit # 1	48	48	9/15	22.09.2015(A)	Commissioned
		Unit # 2	48	48	10/15	23.09.2015(A)	
	Sub- total (C):		526	426			Achieved:-426 MW
	Total (A+B+C)		1691	1516			Achieved:-1516 MW
Note: 1516 MW out of 1691MW is Commissioned.							

Out side RFD achievements:

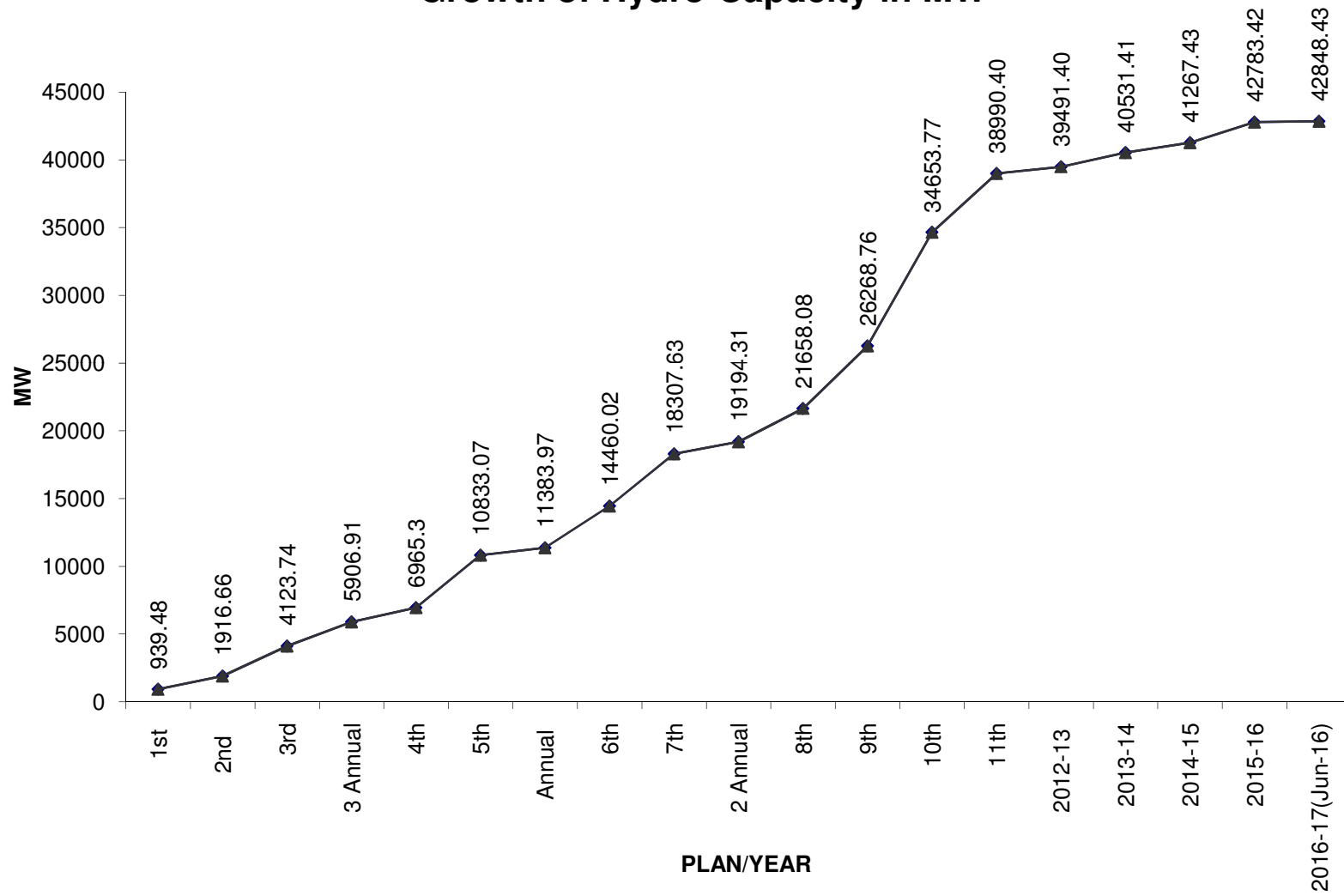
Unit #3 (400 MW) of Baglihar-II HEP commissioned ahead of Programme during Oct-2015.

CHAPTER - 3

GROWTH OF INSTALLED CAPACITY (Excluding RES projects)

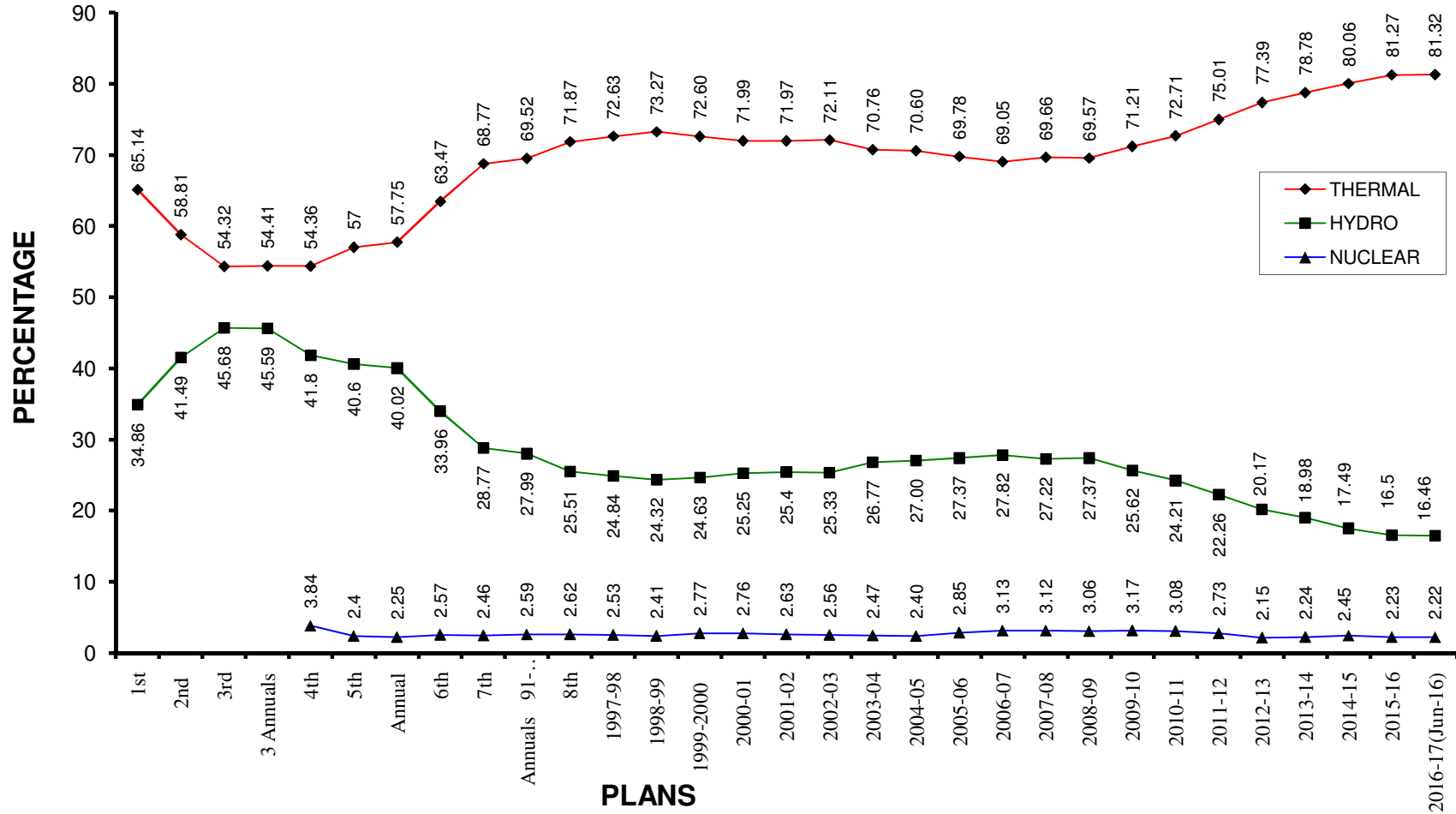


Chapter 3.1 Growth of Hydro Capacity in MW



CHAPTER - 4

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



CHAPTER- 5
Sanctioned Hydro Projects for 12th Plan & Beyond
(Excluding projects under Ministry of New & Renewable Energy)

Sl. No.	Name of Scheme	State	I.C. (No. x MW)	Benefits (MW)	Date of Approval	Likely Commng.
A. Hydro Capacity as per Programme of 12th Plan						
i) Commissioned during 12th Plan						
Commissioned during 2012-13						
Central Sector						
1	Chamera-III (NHPC)	H.P.	3x77	231.00	01.09.05	
2	Chutak (NHPC)	J&K	4x11	44.00	24.08.06	
3a	Teesta Low Dam-III (NHPC)	W.B.	4x33	99.00	30.10.03	
Sub- total (Central Sector) :				374.00		
State Sector						
4a	Bhawani Barrage III (TANGEDCO)	T.N.	2x15	15.00	27.03.02	
5	Myntdu (MeECL)	Meghalaya	2x42+ 1x42	42.00	09.06.03	
Sub- total (State Sector) :				57.00		
Private Sector						
6	Budhil (LANCO Green Power)	H.P.	2x35	70.00	02.06.05	
Sub- total (Private Sector) :				70.00		
Total Commissioned 2012-13				501.00		
Commissioned during 2013-14						
Central Sector						
3b	Teesta Low Dam-III (NHPC)	W.B.	4x33	33.00	30.10.03	
7	Uri-II (NHPC)	J&K	4x60	240.00	01.09.05	
8	Nimoo Bazgo (NHPC)	J&K	3x15	45.00	24.08.06	
9a	Parabati-III (NHPC)	H.P.	4x130	390.00	09.11.05	
10a	Rampur (SJVN L)	H.P.	6x68.67	206.00	25.01.07	
Sub- total (Central Sector) :				914.00		
State Sector						
11	Bhawani Barrage II (TANGEDCO)	T.N.	2x15	30.00	11.06.99	
4b	Bhawani Barrage III (TANGEDCO)	T.N.	2x15	15.00	27.03.02	
Sub- total (State Sector) :				45.00		
Private Sector						
12	Chujachen (Gati Infrastructure)	Sikkim	2x49.5	99.00	30.11.04	
Sub- total (Private Sector) :				99.00		
Total Commissioned 2013-14				1058.00		
Commissioned during 2014-15						
Central Sector						
9b	Parabati-III (NHPC)	H.P.	4x130	130.00	09.11.05	
10b	Rampur (SJVN L)	H.P.	6x68.67	206.00	25.01.07	
13a	Kol Dam (NTPC)	H.P.	4x200	400.00	28.10.02	
Sub- total (Central Sector) :				736.00		
Total Commissioned 2014-15				736.00		
Commissioned during 2015-16						
Central Sector						
13b	Kol Dam (NTPC)	H.P.	4x200	400.00	28.10.02	
14 ^P	Teesta Low Dam-IV (NHPC)	W.B.	4x40	80.00	30.09.05	
Sub- total (Central Sector) :				480.00		
State Sector						
15	Baglihar- II (JKPDC)	J&K	3x150	450.00	19.03.12	
16 ^P	Lower Jurala (TSGENCO)	Telangana	6x40	160.00	July, 2007	
Sub- total (State Sector) :				610.00		
Private Sector						
17	Shrinagar (AHPC)	Uttarakhand	4x82.5	330.00	14.06.2000	
18	Jorethang Loop (DANS Energy)	Sikkim	2x48	96.00	26.08.06	
Sub- total (Private Sector) :				426.00		
Total Commissioned 2015-16				1516.00		
Commissioned during 2016-17 (Upto 30.06.2016)						
State Sector						
19	Kashang -I (HPPCL)	H.P.	1x65	65.00	Nov, 01	
Sub- total (State Sector) :				65.00		
Total (i) 12th Plan-Commissioned (up to 30.06.2016)				3876.00		
ii) Under Execution						
Central Sector						
1	Kishanganga (NHPC)	J&K	3x110	330.00	20.07.07	2016-17 *C
2	Parbati St. II (NHPC)	H.P.	4x200	800.00	11.09.02	2018-19
3	Tapovan Vishnugad (NTPC)	Uttarakhand	4x130	520.00	11/2006	2018-19
4 ^P	Teesta Low Dam-IV (NHPC)	W.B.	4x40	80.00	30.09.05	2016-17 *P
5a	Subansiri Lower (NHPC)	Ar. Pr./Assam	8x250	1000.00	09.09.03	2020-21 *R
6	Kameng (NEEPCO)	Ar. Pr.	4x150	600.00	02.12.04	2016-17 *C
7	Pare (NEEPCO)	Ar. Pr.	2x55	110.00	04.12.08	2016-17
8	Tuirial (NEEPCO)	Mizoram	2x30	60.00	14.01.11	2017-18
Sub- total (Central Sector) :				3500.00		

Sl. No.	Name of Scheme	State	I.C. (No. x MW)	Benefits (MW)	Date of Approval	Likely Commng.
State Sector						
9	Uhl-III (BVPCL)	H.P.	3x33.33	100.00	19.09.02	2017-18
10	Kashang -II & III (HPPCL)	H.P.	2x65	130.00	-	2019-20 *R
11	Sainj (HPPCL)	H.P.	2x50	100.00	29.12.10	2016-17
12	Swara Kuddu (HPPCL)	H.P.	3x37	111.00	10.11.04	2018-19
13	Nagarujana Sagar TR (APGENCO)	A.P.	2x25	50.00	17.01.05	2016-17
14 ^P	Lower Jurala (TSGENCO)	Telangana	6x40	80.00	July, 2007	2016-17 *P
15	Pulichintala (TSGENCO)	Telangana	4x30	120.00	25.04.07	2016-18
16	Pallivasal (KSEB)	Kerala	2x30	60.00	Jan., 07	2019-20 *R
17	Thottiyar (KSEB)	Kerala	1x30+1x10	40.00	05.06.08	2019-20 *R
18	New Umtru (MePGCL)	Meghalaya	2x20	40.00	Dec., 07	2016-17
19	Teesta St. III (Teesta Urja) (*)	Sikkim	6x200	1200.00	12.05.06	2016-17

Sub- total (State Sector) :

2031.00

Private Sector

20	Sorang (Himachal Sorang Power)	H.P.	2x50	100.00	09.06.06	2017-18
21	Tidong-I (NSL Power)	H.P.	2x50	100.00	28.07.06	2017-18
22	Tangnu Romai- I (NSL Power)	H.P.	2x22	44.00	30.11.07	2018-19 *R
23	Phata Byung (LANCO)	Uttarakhand	2x38	76.00	06.10.08	2017-18 *A
24	Singoli Bhatwari (L&T)	Uttarakhand	3x33	99.00	11.07.08	2020-21 *A
25	Maheshwar (SMHPCL)	M.P.	10x40	400.00	30.12.96	2017-18 *R
26	Teesta St. VI (LANCO)	Sikkim	4x125	500.00	27.12.06	2021-22 *R
27	Rangit-IV (JAL Power)	Sikkim	3x40	120.00	06.07.07	2018-19 *R
28	Bhasmey (GATI Infrastructure)	Sikkim	2x25.5	51.00	Dec-08	2019-20

Sub- total (Private Sector) :

1490.00

Total ii: 12th Plan-Under execution

7021.00

Total 'A': 12th Plan (Comm. + Under Execution)

10897.00

SUMMARY- 12th Plan

	Central	State	Private	Total
Commissioned	2504.00	777.00	595.00	3876.00
Under Construction	3500.00	2031.00	1490.00	7021.00
Total: (12th Plan)	6004.00	2808.00	2085.00	10897.00

B. Hydro Capacity for benefits beyond 12th Plan- Under Execution

Central Sector

29	Tehri PSS (THDC)	Uttarakhand	4x250	1000.00	18.07.06	2019-20
30	Lata Tapovan (NTPC)	Uttarakhand	3x57	171.00	17.07.12	2021-22 *R
31	Vishnugad Pipalkoti (THDC)	Uttarakhand	4x111	444.00	21.08.08	2019-20
5b	Subansiri Lower (NHPC)	Ar. Pr./Assam	8x250	1000.00	09.09.03	2020-21 *R
32	Ramam-III (NTPC)	West Bengal	3x40	120.00	10.09.14	2019-20

Sub- total (Central Sector) :

2735.00

State Sector

33	Shongtom Karcham (HPPCL)	H.P.	3x150	450.00	16.08.12	2019-20
34	Shahpurkandi (PSPCL)	Punjab	3x33+3x33+1x8	206.00	04.05.11	2019-20 *R
35	Vyasi (UJVNL)	Uttarakhand	2x60	120.00	25.10.2011	2018-19
36	Koyna Left Bank (WRDMah)	Maharashtra	2x40	80.00	20.02.04	2019-20 *A
37	Polavaram (PPA)	Andhra Pradesh	12x80	960.00	25.02.09	2021-22 *A

Sub- total (State Sector) :

1816.00

Private Sector

38	Ratle (Ratle Hydro)	J&K	4x205+1x30	850.00	19.12.12	2021-22 *R
39	Bajoli Holi (GMR)	H.P.	3x60	180.00	30.12.11	2019-20
40	Chanju-I (IA Energy)	H.P.	3x12	36.00	24.04.10	2016-17
41	Tashiding (Shiga)	Sikkim	2x48.5	97.00	06.04.09	2016-17
42	Dikchu (Dikchu)	Sikkim	3x32	96.00	21.10.11	2016-17
43	Rangit-II (Sikkim Hydro Power)	Sikkim	2x33	66.00	10.02.10	2019-20 *R
44	Rongnichu (Madhya Bharat Power)	Sikkim	2x48	96.00	01.10.08	2019-20
45	Panan (Himagiri Hydro Energy)	Sikkim	4x75	300.00	07.03.11	2020-21 *A
46	Gongri (Dirang Energy)	Ar. Pradesh	2x72	144.00	04.02.13	2019-20 *A

Sub- total (Private Sector) :

1865.00

Total 'B': Beyond 12th Plan-Under execution

6416.00

Total: Under Execution

13437.00

Under Construction (12th plan & Beyond)	Central	State	Private	Total
	6235.00	3847.00	3355.00	13437.00

Legends: *C-Critical; *P-Partially Commissioned ; *R-Subject to Re-Start of works. ; *A-Subject to Active Start of works; (*) w.e.f. 6-8-15, Teesta Urja Ltd. is a Govt. of Sikkim Enterprise.

Chapter-6

Status of Under Execution Hydro Electric Projects for 12th Plan & beyond

Sl. No.	Name of Project Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores.	<u>State Comm. Sch.</u> (original/ Now Ant.	Broad Present Status / Critical Area	Remarks/ Critical issues
A				
Hydro Capacity for benefits during 12th Plan				
i) Projects Commissioned during 12th Plan				
Commissioned during 2012-13				
1.	Chamera-III 3x77= 231 MW NHPC Broad Features : Dam –68m High, 78 m length , concrete gravity HRT- 6.5m x 15.93 km P.House- underground 100mx 20.6mx 40m Turbine- V.Francis SWYD- 11/220 kV Cost: Original: 1405.63 Latest: 1405.63	H.P. <u>2010-11</u> 2012-13	Unit#3: Commissioned on 07.06.2012. Unit#2: Commissioned on 12.06.2012. Unit#1: Commissioned on 28.06.2012.	
2.	Chutak 4x11 = 44 MW NHPC Broad Features: Barrage- 5 bays, 47.5 long HRT- D-5.9m , L- 4.37Km P.House- Underground 81mx 15.5 mx 34.5 m Turbine- V. Francis SWYD- 11/33 kV Cost: Original: 621.26 Latest: 913.25	J&K <u>2010-11</u> 2012-13	Unit#2: Commissioned on 08.11.2012. Unit#3: Commissioned on 11.11.2012. Unit#1: Commissioned on 22.11.2012. Unit#4: Commissioned on 28.01.2013.	
3a.	Teesta Low Dam-III 4x33 = 132 MW NHPC Broad Features : Barrage–140m L , 32.5m Height Penstock-4x 7m x 50m P.House- Surface 125mx 22mx56m Turbine- Kaplan Net head- 21.34m SWYD- 11/220 kV Cost: Original:768.92 Latest: 1628.00	West Bengal <u>2006-07</u> 2012-13	Unit-1: Commissioned on 30.01.2013 Unit-2: Commissioned on 20.01.2013. Unit-3: Commissioned on 24.02.2013.	
State Sector				
4a.	Bhawani Kattalai Barrage-III, 2x15 = 30 TANGEDCO 27.03.02 Broad Features: Barrage –22 gates P.House- Surface Turbine- Bulb Cost: Original: 99.75 Latest: 442.73 Cr.	Tamil Nadu <u>2006-07</u> 2012-14	U #1: Commissioned on 08.12.2012.	

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
5.	Myntdu, MeECL 20.09.99/ 2x42+1x42 = 126 MW Broad Features: Dam –63m High HRT- 3316.46mx3.4m dia Power House- Surface Turbine- V. Francis Cost: Original: 363.08 Latest: 965.93	<u>Megh.</u> <u>2006-07</u> 2012-13	Unit #3: Commissioned on 07.03.2013.	
Private Sector				
6.	Budhil Lanco Green Power Pvt Ltd 1.06.2005/ Jan, 06 (FC) 2x35=70 MW Broad Features: Dam-58m High HRT-4m x 6028m. Power House- underground Turbine- V. Francis Cost: Original: 418.80 Latest: 418.80	<u>H.P.</u> <u>2008-09</u> 2012-13	Unit#2: Commissioned on 26.05.2012. Unit#1: Commissioned on 30.05.2012.	
Commissioned during 2013-14				
Central Sector				
3b	Teesta Low Dam-III 4x33 = 132 MW NHPC Broad Features : Barrage – 140m long , 32.5 m high Penstock-4x 7m x 50m P.House- Surface 125mx 22mx56m Turbine- Kaplan Net head- 21.34m SWYD- 11/220 kV Cost: <u>Original: 768.92</u> <u>(12/02)</u> Latest: 1628.00	<u>West</u> <u>Bengal</u> <u>2006-07</u> 2013-14	Unit-4: Commissioned on 01.04.2013.	
7.	Uri-II NHPC 01.09.2005 4x60 = 240 MW Broad Features : Dam – 52m High, 172m long, concrete gravity HRT- 8.4m x 4.27km P.House-Underground Turbine- V. Francis TRT- 8.4 m dia x 3.78 km long SWYD- 11/400 kV Cost: Original:1724.79 Latest: 2081.00	<u>J&K</u> <u>2009-10</u> 2013-14	Unit#1: Commissioned on 25.09.2013. Unit#3: Commissioned on 27.09.2013. Unit#2: Commissioned on 16.11.2013. Unit#4: Commissioned on 02.02.2014.	
8.	Nimoo Bazgo NHPC 24.08.2006 3x15 = 45 MW	<u>J&K</u> <u>2010-11</u> 2013-14	Unit#3: Commissioned on 30.10.2013. Unit#2: Commissioned on 31.10.2013. Unit#1: Commissioned on 02.11.2013.	

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
	Broad Features: Dam –57.5m High, concrete Spillway- 5 x 65m P.House- Surface Turbine- V. Francis SWYD- 11/33 kV Cost: Original: 611.01 Latest: 936.10			
9a.	Parbati-III NHPC 09.11.2005 4x130 = 520 MW Broad Features : Dam – 43m High, 229 m long, Rockfill type HRT- 7.25m x 7.98km P. House -Underground Turbine- V. Francis SWYD- 13.8/400 kV Cost: Original: 2304.56 Latest: 2716.00	<u>H.P.</u> <u>2010-11</u> 2013-15	Unit#1: Commissioned on 18.02.2014. Unit#2: Commissioned on 27.02.2014. Unit#3: Commissioned on 15.03.2014.	
10a	Rampur SJVNL 16.12.2005/25.01.07 6x68.67= 412 MW Broad Features: HRT-10.5m x 15.08Km S.Shaft- 38m x 149m P.House- Surface Turbine- Francis Switchyard – 400 kV Cost: Original: 2047.03 Latest: 3337.91	<u>H.P.</u> <u>2011-12</u> 2013-15	Unit#1: Commissioned on 23.03.2014. Unit#2: Commissioned on 21.03.2014. Unit#5: Commissioned on 29.03.2014.	
	State Sector			
11.	Bhawani Kattalai Barrage-II 2x15 = 30 MW TANGEDCO 11.6.99 Broad Features: Barrage –22 gates P.House- Surface Turbine- Bulb Cost: <u>Original: 99.15</u> Latest: 497.46.	<u>Tamil Nadu</u> <u>2006-07</u> 2013-14	Unit#1: Commissioned on 27.08.2013. Unit#2: Commissioned on 06.09.2013.	
4b.	Bhawani Kattalai Barrage-III, 2x15 = 30 TANGEDCO 27.03.02 Broad Features: Barrage –22 gates P.House- Surface Turbine- Bulb Cost: Original: 99.75 Latest: 442.73	<u>Tamil Nadu</u> <u>2006-07</u> 2013-14	U #2: Commissioned on 25.09.2013.	
	Private Sector			
12.	Chujachen Gati Infrastructure Ltd,	<u>Sikkim</u>	Unit#2: Commissioned on 20.04.2013. Unit#1: Commissioned on 21.04.2013.	

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
	Secunderabad 30.11.2004 (State Govt.) 2x49.5= 99 MW Broad Features: Dam – Rangpo- 48.5m High Rongli- 41m High HRT- Rampo-3.3m x 2578m Rongli-3.5m x 2256m Common-5.2m x 3225m S. Shaft-12m x 104m P.House- Surface Turbine- V. Francis Cost: Original: 448.76 Latest: 1044.50	2009-10 2013-14		
Commissioned during 2014-15				
Central Sector				
9b.	Parbati-III NHPC 09.11.2005 4x130 = 520 MW Broad Features : Dam – 43m High, 229 m long, Rockfill type HRT- 7.25m x 7.98km P. House -Underground Turbine- V. Francis SWYD- 13.8/400 kV Cost: Original: 2304.56 Latest: 2716.00	<u>H.P.</u> 2010-11 2014-15	Unit#4: Commissioned on 22.05.2014	
10b	Ram Pur SJVNL 16.12.2005/25.01.07 6x68.67= 412 MW Broad Features: HRT-10.5m x 15.08Km S.Shaft- 38m x 149m P.House- Surface Turbine- Francis Switchyard – 400 kV Cost: Original: 2047.03 Latest: 3337.91	<u>H.P.</u> 2011-12 2014-15	Unit#4: Commissioned on 12.06.2014 Unit#3: Commissioned on 31.07.2014 Unit#6: Commissioned on 04.12.2014	
13a	Kol Dam NTPC 30.6.2002/Oct.2002 4x200 = 800 MW Broad Features : Dam – 163m High, Rock & Gravel fill Penstock Tunnel: 4nos. 6.45m dia, 1600m long P.House- Surface Turbine- V. Francis Cost: Original: 4527.15 Latest: 7220.00	<u>H.P.</u> 2008-10 2014-16	Unit#2: Commissioned on 30.03.2015 Unit#1: Commissioned on 31.03.2015	
Commissioned during 2015-16				
Central Sector				
13b	Kol Dam	<u>H.P.</u>	Unit # 3: Commissioned on 10.04.2015	

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
	NTPC 30.6.2002/Oct.2002 4x200 = 800 MW Broad Features : Dam – 163m High, Rock & Gravel fill Penstock Tunnel: 4nos. 6.45m dia, 1600m long P.House- Surface Turbine- V. Francis Cost: Original: 4527.15 Latest: 7220.00	<u>2008-10</u> 2015-16	Unit # 4: Commissioned on 12.06.2015	
14.	Teesta Low Dam-IV NHPC 30.09.2005 4x40 = 160 MW Broad Features : Dam – 45m High, 511m long, concrete gravity P. House- Surface 130mx 24mx 63m Turbine- Kaplan SWYD- 11/220 kV Cost: Original: 1061.38 Latest: 2193.08	<u>West</u> <u>Bengal</u> <u>2009-10</u> 2015-17	Unit #1: Commissioned on 14.02.2016. Unit #2: Commissioned on 16.03.2016.	- Partially Commissioned.
State Sector				
15.	Baglihar-II JKPDC 19.03.2012 3x150= 450 MW Broad Features: HRT – 10.15 m dia circular & 1888.8 m long Surge Shaft: 27.5 m dia & 97.5 m high restricted orifice type Power House: Underground TRT: D- 10.05 m L-342.6 m Cost: Original: 3113.19 Latest: 3113.19	<u>J&K</u> <u>2015-16</u> 2015-16	Unit # 1 : Commissioned on 05.09.2015. Unit # 2 : Commissioned on 29.09.2015. Unit # 3 : Commissioned on 26.10.2015.	
16.	Lower Jurala TSGENCO, 04.12.2008 6x40=240 MW (120 MW likely to slip) Broad Features: Intake: 18 vents (3 vents for each unit) 4.7m width, Power House- Surface, Turbine- Bulb Design Head- 20m SWYD- 220 kV Cost: Original: 908.34 Latest: 1969.14	<u>Telengana</u> <u>2011-13</u> 2015-17	Unit # 2: Commissioned on 30.09.2015. Unit #1: Commissioned on 14.10.2015. Unit #3: Commissioned on 04.01.2016 Unit # 4: Commissioned on 05.03.2016	- Partially Commissioned.
Private Sector				
17.	Shrinagar AHPC Ltd..	<u>Uttara</u> <u>khand</u>	Unit # 1: Commissioned on 10.04.2015 Unit # 2: Commissioned on 08.06.2015	

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
	14/06/2000/ FC 4x82.5=330 Broad Features: Dam –66.5m High, concrete gravity HRT- 13m x 889m Penstock-4x 5.6m x 114m P.House- Surface Turbine- Francis Cost: <u>Original: 1699.12</u> Latest: 2069.00	<u>2005-06</u> 2015-16	Unit # 3: Commissioned on 20.04.2015 Unit # 4: Commissioned on 03.06.2015	
18.	Jorethang Loop M/s DANS Energy 2x48 = 96 MW Broad Features: Barrage: Gravity Floor on Permeable Foundation 15 m High . HRT : D- 7m L-6.780km Surge Shaft :59m Height & 25m dia. Pressure Shaft : 172.60m length & 6m dia. Power House : Surface TR-Cut & Cover Conduit & 46.4m length. Switchyard: Outdoor, 220 KV/11KV Cost: <u>Original: 543.15</u> Latest : 543.15	<u>Sikkim</u> <u>2012-13</u> 2015-16	Unit # 1: Commissioned on 22.09.2015 Unit # 2: Commissioned on 23.09.2015	
Commissioned during 2016-17				
State Sector				
19.	Kashang-I H.P. Power Corpn. Ltd. 31.07.08 65 MW Broad Features: HRT-3.5m x 4.115, 2 km long S.Shaft- 2.6m dia & 0.5 m backfill & 1346m long TRT: 335 m combined 6/4.5 m D. stream Cost: <u>Original: 478.02</u> Latest: 478.02	<u>H.P.</u> <u>2013-14</u> 2016-17	Commissioned on 27.06.2016	
A	Hydro Capacity for benefits during 12th Plan			
Central Sector				
1	Kishanganga NHPC 14.01.2009 3x110 = 330 MW Broad Features : Dam – 77m High, concrete gravity HRT- 5.3m x 24 km long S.Shaft-15m dia x 127m Height P.House- Underground 103mx 21m x 45.5m.	<u>J&K</u> <u>2015-16</u> 2016-17 (With best efforts)	Dam & Intake works:- Spillway concreting- 37792 cum completed out of 45000 cum. CFRD Embankment- Completed. Construction of Cut off Wall completed. HRT:- Excavation completed by TBM/ DBM. Lining of TBM portion (14.7 km) completed and 5496m lining of DBM portion completed out of 8410m. Surge Shaft:- Concreting completed. Pressure Shaft liner:- 647 m liner completed out of 1024 m. Power House:- Concreting completed. TRT : -Excavation Completed. 630m overt lining out of 849m completed.	-Completion of Power evacuation arrangement. (PGCIL) -Completion of R&R works

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
	Turbine- Pelton wheel Swyd.- 220 kV Cost: Original:3642.04 Latest: 5783.17 (09/15 PL)		E&M: - Unit # 1: Stator & rotor Lowered. Unit # 2: Stator lowered, Rotor building under progress. Unit # 3: Erection of Turbine housing & Distributor Completed. Critical Area: 1) Dam and associated HM works. 2) Filling of reservoir by 20th Aug.2016 3) Power evacuation system.	
2.	Parbati-II NHPC 11.09.2002 4x200 = 800 MW Broad Features : Dam – 85m High, 109. m long at top, concrete gravity type HRT- 6m x 31.23km P.House- Surface 23.5mx 39.7mx 123m. Turbine- Pelton Swyd.- 13.8/400 kV Cost: Original:3919.59 Latest: 8398.75	<u>H.P.</u> 2009-10 2018-19	Dam & Intake Structure- Concreting completed. Head Race Tunnel- 27159 m Excavation out of 31525m completed Total Overt lining: 23143 m lining out of 31525 m completed. Power House: Concreting completed. Jiwa Nallah Feeder Tunnel: 4544 m Excavation out of 4560 m completed. 1395 m Concreting out of 4560 m completed. E&M Works: Unit # 1: Boxed up. Unit #2 : Boxing up in progress. Unit # 3: Stator lowered and assembly of rotor completed in service bay. Unit # 4: Erection of Stator frame completed. Stator Core & Rotor rim building in progress. HM Works: Erection of ferrules in both Pressure Shafts completed and testing & commissioning of surge shafts gate completed. Erection of Radial Gates completed & welding in progress. Critical Area : HRT.	Poor geology in HRT especially in Face-4 (TBM-Face).
3.	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: 3846.30	<u>Uttara khand</u> 2012-13 2019-20	River diversion achieved on 13.04.2013 Barrage: Excavation completed and Concreting 92017 cum out of 141295 cum completed. HRT: 7651.5 m excavation completed out of 12087.9 m, TBM struck due to cavity (5.5km completed out of 8.8km) PH Cavern: Excavation completed and concreting 11835 cum out of 20000 cum completed. Desilting Chamber & Intake: 2.48 lakhs m ³ out of 4.73 lakh m ³ Excavation completed. TRT: Excavation completed. Unit #1 Stator Core building & Rotor poles erection is under progress. Surge shaft: Excavation & Lining completed. Penstock: Excavation completed and Lining of 794 m out of 1372 m completed. E&M works: Pit liner erection on all 4 units completed. Turbine housing erection of all 4 units completed. Erection of EOT crane in BVC & service bay completed. Critical : HRT	- HRT is critical. - Clearance of NBWL
4.	Teesta Low Dam-IV NHPC 30.09.2005 4x40 = 160 MW Broad Features : Dam – 45m High, 511m long, concrete gravity P. House- Surface 130mx 24mx 63m Turbine- Kaplan	<u>West Bengal</u> 2009-10 2016-17 (Sept., 2016)	Unit #1: Commissioned on 14.02.2016. Unit #2: Commissioned on 16.03.2016. Unit #3: Commissioning process underway and likely to be commissioned shortly. Unit #4: Unit Boxed up, commissioning by Sept, 2016.	-

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
	SWYD- 11/220 kV Cost: Original: 1061.38 Latest: 2336.74 (12/15 PL)			
5a.	Subansiri Lower NHPC 09.09.2003 8x250= 2000 MW Broad Features : Dam –116m High, concrete gravity HRT- 8 x 9.5m x 1145m Power House- Surface Turbine- Francis SWYD- 16/400 kV Cost: Original: 6285.33 Latest: 17435.15 (02/16 PL)	Arunachal Pradesh Assam <u>2009-11</u> 2020-21 (Subject to re-start of works)	Dam: Excavation- 169441 cum completed out of 173000 cum. Concreting: 575426 cum completed out of 1823782 cum. Intake Structure: 261377 cum concreting completed out of 279454 cum. Head Race Tunnel (I-VIII): 7050 m heading excavation completed out of 7124m. 4279 m benching excavation completed out of 7124 m. 3199 m concrete overt lining completed out of 7124 m. Surge Tunnels (8 nos.): 3109 m heading excavation completed out of 3545 m. Pressure Shaft- Vertical Pressure Shaft Slashing: 199 m excavation out of 384 m completed. Surface Power House: Concreting: 124887 cum out of 302600 cum completed. E&M Works: Unit #1: Elbow erection (1 to 6) and Turbine stay ring and Spiral case erection completed. Unit #2: Elbow erection (2 to 6) and Turbine stay ring and Spiral case erection completed. HM Works: Erection of diversion tunnel gates 23% completed. Erection of Intake-5: 2% completed. Erection of Intake 7 & 8 – 20% completed each. 201 m pressure shaft steel liner erected out of total 1594 m. Work stopped since 16.12.11 due to agitation launched by various activists against construction of Subansiri Lower HE Project. In this regard, as decided in the tripartite meeting dated 06.12.13, discussions between Expert Group formed at the request of AASU (All Assam Students Union) and Experts of Govt. of India & NHPC was held on 23.12.13. Last meeting between Expert Group of Assam and Experts of Govt. of India was held on 02.06.14 at Guwahati. Thereafter, meetings with Expert Group of Assam on 10.12.2014 and on 21.02.2016 & 22.02.2016 with various Stakeholders of Subansiri Lower Project on 11.12.2014 were held to discuss the issues. The meetings were Co-chaired by Hon'ble MOS (I/C) for Power, Coal and New & Renewable Energy and Hon'ble MOS (I/C) for Skill Development, Entrepreneurship, Youth Affairs & Sports. As decided in stakeholders meeting on 11.12.2014, a Project oversight Committee (POC) was constituted vide MoP's OM dated 13.01.2015. Due to difference in opinion on some issues mainly seismic issues, the Expert Group of Assam has submitted the final report to MoP & members of POC from Government of India have also submitted a separate report to MoP. Matter related to Project is being heard by NGT. NGT allowed NHPC to undertake emergency maintenance works for safety and protection of the public & property.	- Signing of MoU with State Government of Assam. - Issue of Downstream Impact Assessment & demand for stoppage of works by anti dam activists. -Since 16.12.2011 works stopped due to agitation by various activists of Assam. -Case in NGT.
6.	Kameng NEEPCO 02 12 2004	Arunachal Pradesh	Bichom Dam: Excavation 764383/780000 cum and Concreting 322550/404748 cum completed. Tenga Dam: Excavation 151455 / 152005 cum and Concreting	-Dam and HRT is critical.

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
	4x150 = 600 MW Broad Features: Dam :Bichom-69m High, 247.3m long. Tenga – 24.4 High, 103m long. HRT- 6.7m dia, 14.45 km. High Pressure Tunnel (HPT)Total length 3.64 km Surge Shaft: 25m dia, 70m Height P.House- semi-U/G Turbine- Francis Cost: Original: 2496.90 Latest: 6179.96	<u>2009-10</u> <u>2016-17</u> (With best efforts-300 MW) (Critical)	93632 / 97086 cum completed. HRT: Excavation completed. Lining of 10848.5 out of 14328m completed. Surge Shaft: Orifice concrete Lining 62.8 Rm / 71.35 Rm completed. HPT: Boring of vertical and horizontal portion completed & Open excavation of Surface Penstock including valve house 441136/462504 cum completed. Power House & Tail Race: Excavation completed. Concreting 84942 / 85379 cum completed. HM Works: Fabrication of penstocks completed and 95% fabrication & erection of gates done. Unit erection: Unit # 1 & 2: Assembly of stator and Rotor is in progress. Assembly of Runner & Shaft for Unit #1 is in progress. Unit # 3 & 4: Hydro test of spiral case completed. Unit # 4: Trial Assembly of Guide Apparatus is in progress. Critical: 1. Dam construction & associated HM works 2. HRT lining.	
7.	Pare NEEPCO 4.12.2008 2x55 = 110 MW Broad Features: Dam : 63m High, Con. Gravity Spillway – 3 nos. gates Size of gate: 10.4m (w)X 12 m(H) Crest Level: 216 m HRT: Dia – 7.5 M Length– 2810.75M Pressure Shaft: Dia: 6.4 M Length: 220M Bifucation Penstock Dia: 4.5 M Power House: Surface P.H. Size: 68 mX 25m Type of Turbine: VF TRC: Open channel 60.62 M wide 49M long Cost: Original: 573.99 Latest: 1262.27	Arunachal Pradesh <u>2013-14</u> <u>2016-17</u> (Critical)	Civil Works: Dam: Excavation - 367358 cum out of 398000 cum completed. Concreting – 109874 cum out of 183000 cum completed. Head Race Tunnel: Boring and Lining completed. High Pressure Tunnel: Boring completed. Surge shaft: Open excavation, boring and lining completed. Power House: Excavation in pit completed. Concreting 38303 / 40500 cum completed. Hydro Mechanical Works: Erection of steel liner – 214 out of 274.50 m completed. Erection of DT inlet gate completed. Unit erection: Unit-1: Rotor & Stator lowered. Erection of Spiral Casing & MIV completed. Unit-2: Erection of Turbine Assembly is in progress. Concreting in generating barrel completed. Critical: 1. Dam construction & associated HM works	- Concreting of Dam & associated HM works are critical.
8.	Tuirial NEEPCO Revised CCEA 14.01.2011 2x30= 60 MW Broad Features: Dam: Earthfill, L – 250 M H – 75 M	<u>Mizoram</u> <u>2006-07</u> <u>2017-18</u>	Dam: 5.06 lac cum excavation out of 5.19 lacs cum completed & filling 29.77 lacs cum out of 30.73 lacs cum completed. Spillway: Excavation almost completed. Concreting 124074 cum out of 124074 cum completed. Power House & Switchyard: Excavation almost completed. 17786cum of Concreting in Power House out of 22010 cum is completed. E&M works : DT Bend liner for unit#1 lowered and aligned. EOT crane has been erected and load test to be conducted. 1. Critical: E&M works	<ul style="list-style-type: none"> - Slope failure in Power house area. - Slope stabilization completed. - Poor approach roads. - Late mobilization of erection contractor for E&M works.

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
	Diversion Tunnel: Partly circular & partly modified horse shoe Diameter Diverted concrete portion 6 M steel liner portion 6M, 5.6 M & 3.6 M Power tunnel: Concrete Portion – 200 M Steel Liner Portion – 140M, 80M & 2.30 M Cost: <u>Original:368.72</u> Latest: 1381.71			
	State Sector			
9.	Uhi-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: <u>Original: 431.56</u> Latest: 940.84	<u>H.P.</u> <u>2006-07</u> <u>2017-18</u>	Almost all civil works completed except lining of HRT. 6063m (5619 + 444 done by earlier contractor) lining of HRT completed out of 8459m. E&M:- All units boxed up. Critical : HRT	- HRT lining critical.
10.	Kashang-II & III H.P. Power Corpn. Ltd. 1x65 + 1x65= 130 MW Cost: <u>Original: 601.78</u> Latest: 601.78	<u>H.P.</u> <u>2013-14</u> <u>2019-20</u> (Subject to re-start of works)	Works of Kerang-Kashang link (KK Link) tunnel awarded to M/s Patel Engineering Ltd. Work on KK link tunnel is hampered due to two separate cases regarding Forest and Environmental issues are filed by Paryavaran Sangrakshan Smiti Lippa and Bhagat Singh Kinner respectively in NGT. Matter is being persuaded at higher level. Work on BR-III resumed on 17.09.2015 and excavation 49m out of 1238m is balance & concreting 472m out of 1238 m is completed. - E&M works are in progress along with works of Kashang – I works and are in advance stage of completion.	-Works on KK Link tunnel getting delayed due to continuous agitation by Lippa villagers. -The matter is sub-judice.
11.	Sainj H.P. Power Corpn. Ltd. 2 X50=100 MW 29.12.2010 Cost: Original <u>784.56</u> Latest 784.56	<u>H.P.</u> <u>2014-15</u> <u>2016-17</u>	Barrage: Concreting almost completed. HRT: Excavation & Lining completed. Surge Shaft: Excavation & lining completed. Pressure Shaft: Excavation completed. 627m out of 695 m lining completed. Power House: Excavation & lining almost completed. TRT: Excavation and Concreting completed. Unit Erection: Unit-1- Boxed up. Unit-2- Boxing up in progress.	
12.	Swara Kuddu H.P. Power Corpn. Ltd. Clearance: 10.11.2004 3x37= 111 MW Broad Features: Diversion Structure: 10.45m high Piano Key	<u>H.P.</u> <u>2010-11</u> <u>2018-19</u>	Barrage: Excavation completed & concreting is under advance stage of completion. HRT: 10407m out of 11364 m from all faces of HRT excavation completed and 4586 m out of 11364m overt lining completed. Surge Shaft: 76.6 m completed out of 77 m of shaft lining. Power House: Excavation completed and concreting almost	- Works badly suffered due to encounter of poor geology in HRT. - Contractual Issues. -Contract for HRT package terminated on 9.1.14. Re-awarded in

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
	Weir. HRT- D-Shaped, 5m dia, 11.145Km long. Power House- Under ground Turbine- 500 rpm VF. Switchyard: 220 Kv. Cost: Original: 558.53 Latest: 1181.90		completed. TRT: lining completed. Unit # 3 & 2 : Both units boxed up. Unit # 1: Boxing up under progress. Critical : HRT	Nov' 2014 to M/s. HCC
13.	Nagarajuna Sagar TR APGENCO 17 01 05 2x25=50 MW Broad Features: Dam -29.5m High Spillway- 21nos gate Penstock- 2x 5.35m P.House- Surface Turbine- V. Kaplan Cost:Original: 464.63 Latest: 958.67	<u>A.P.</u> <u>2008-09</u> 2016-17	- All works completed. - Initial spinning for both units completed. - Commissioning held up due to non-availability of water, Units likely to be commissioned on availability of water.	-Availability of water.
14.	Lower Jurala TSGENCO, 04.12.2008 6x40=240 MW (120 MW likely to slip) Broad Features: Intake: 18 vents (3 vents for each unit) 4.7m width, Power House- Surface, Turbine- Bulb Design Head- 20m SWYD- 220 kV Cost: Original: 908.34 Latest: 1969.14	<u>Telengan</u> <u>a</u> <u>2011-13</u> 2016-17	Weir: Completed. Power House: Almost completed. Unit Erection: The Units 1,2,3 which were completed and units 4,5,6 which are under different stages of erection were completely submerged in water on 30.07.2014 due to sudden gush of water through the upstream gate of Unit No.4. It was dewatered by 03.09.2014. Unit #2: Commissioned on 30.09.2015 Unit #1: Commissioned on 14.10.2015 Unit #3: Commissioned on 04.01.2016 Unit # 4: Commissioned on 05.03.2016 Unit # 5: Boxing up completed Unit # 6 : Unit erection is in advance stage.	- Power House flooded on 30.07.2014 during synchronization process for Unit# 1 to Unit# 3. - Restoration works completed. -Availability of water for commissioning.of Unit# 5 & 6.
15.	Pulichintala TSGENCO 120 MW (4x30 MW) 25.04.2007 Broad Features: Design Head: 24 M Power House: Surface Turbine : V. Kaplan Annual Energy: 220 MU Cost: Original: 380.00 Latest: 563.49	<u>Telengan</u> <u>a</u> <u>2009-11</u> 2016-18	Dam is under construction by Irrigation Department. Power House: The excavation of power house completed and 76596 cum concreting done against 89850 cum.. E&M Works: EOT Crane: Erection and testing completed for all the units. Unit #1: Boxing up is in progress. Unit #2: Turbine erection completed, Barrel completed. Unit #3 and #4: Draft tube and Spiral Casing assembly completed.	- E&M issues of mismatch of parts (BHEL) for Unit 3 & 4. - Availability of water.
16.	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.	<u>Kerala</u> <u>2010-11</u> 2019-20 (Subject to re-start of works)	Intake structure: Excavation – 28398/33492 cum completed. Leading channel of Water conductor system replaced by cut & cover/soil tunnel and accordingly intake is shifted. HRT: Excavation –2858/3330 m completed. Overt conc. 1634/3330 m completed. Invert Conc.. – 1637/3330 m completed. Surge Tank/Forebay: Exc.–7640/13400 cum. Conc.423/843 cum. Pressure Shaft: Excavation completed. Fabrication of steel liner completed and erection of 96/1096 m completed.	- Poor Geology. -Contractual Issues. -Works stopped by the civil contractor from 28.01.2015.

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
	Power House: Surface Turbine : Pelton S.Yard: 220kV – Single bus Cost: Original: <u>222.00</u> Latest : 284.69		Surface penstock: Excavation –105204/122600 cum. Concreting- 11401/12850 cum. Fabrication completed and 1477m out of 2036m erection completed. Power House: Excavation completed. Concreting 3980/11225cum. Tail race Channel (2 Nos.): Excavation & lining completed. E&M Works: 75% supply completed. Erection yet to start.	
17.	Thottiyar KSEB 1x30 + 1x10= 40 MW 05.06.2008 Broad Features: Weir: 222m Long 11 blocks 7.5m height Tunnel: Circular 2.6m dia 199m long. Power House: Surface Turbine : Vertical Pelton Cost: Original: <u>136.79</u> Latest: 150.02	<u>Kerala</u> <u>2012-13</u> <u>2019-20</u> (Subject to re-start of works)	Civil Works: Weir: 3258 cum excavation out of total 5850 cum and 1598 Cum concreting out of 8690 Cum completed. Approach Channel & Intake: 3184 cum out of 9100 cum done. Power Tunnel : Excavation completed. Power House, switchyard & allied works: 31390 cum excavation out of 44500 cum and 2658 cum concreting out of 15675 m done. E&M and HM Works: Supply of equipment in progress. Erection yet to start.	-Works are stand still due to Contractual Issues.
18.	New Umtru MePGCL, 2x20=40 Broad Features: Diversion Structur-Gated structure (FRL-130.1m, MDDL-123.3m) HRT- 5m dia, 750m long P.House- Deep Set SWYD- 132 kV Cost: Original: <u>226.40</u> Latest: 599.00	<u>Meghalay</u> <u>a</u> <u>2011-12</u> <u>2016-17</u>	Dam: Excavation almost completed. Concreting 72010 cum out of 73488 cum completed. Intake: Excavation completed. Concreting 20596 cum out of 21300cum completed. HRT: Excavation completed. Concreting 16686 cum out of 24480 cum completed. Pressure Shaft: Completed. Surge shaft: Open excavation and concreting completed. Power House: Excavation completed & Concreting almost completed. TRT: Open excavation & tunnel boring completed & lining 7226 cum out of 7827 cum completed. E&M : Assembly of Turbine and generator is in progress. Critical : Radial gates of Dam, Draft tube Gates & Surge shaft Gates; E&M works.	
19.	Teesta-III Teesta Urja Ltd. 12.05.2006 6x200=1200 MW Broad Features: .Dam-Concrete with chute spillway 60m high. HRT- 7.5m dia, 13.325Km long. Press. Shaft- 3nos. 3.8m dia. Power House- Under ground Turbine- Pelton Cost: Original <u>5705.55</u> Latest 11382.00	<u>Sikkim</u> <u>2011-12</u> <u>2016-17</u> (With best efforts- 600 MW)	Dam: CFRD filling completed. RCC cut off wall 1183m out of 1307m completed. HRT: Excavation and lining almost completed. Grouting is under progress. Surge Shaft: Excavation & Lining completed. 142.29m conc. lining out of 158m completed. Pressure Shaft: Excavation completed. Erection of steel liner 2772.90.90 out of 2882.51m completed. Power House: Civil works almost completed. TRT: Excavation completed. Concreting almost completed. Unit Erection: All Units Boxed Up.	- Work held up from Sept, 2014 due to fund constraints and re-started in October, 2015. - Transmission System is Critical.
	Private Sector			
20.	Sorang Himachal Sorang Power corporation Ltd. June, 2006/ 2x50= 100 MW Broad Features: HRT- 1.5 km	<u>H.P.</u> <u>2012-13</u> <u>2017-18</u>	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	Repair of penstock work

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
	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		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 incident caused loss of lives & property. The compensation package and funds for repair of Penstock pipe is being worked out by the developer.	
21.	Tidong-I M/s NSL Tidong Power Gen. Ltd. 2x50 = 100 MW 28.07.2006 Broad Features: HRT-D-3.5m L- 8461 m P.H. Surface Turbine –Vertical Pelton Cost: Original 543.15 Latest 543.15	H.P. <u>2013-14</u> 2017-18	Head Regulator & Desilting arrangement: 9913 cum common excavation out of 10500 cum and 8550 cum open cut rock excavation out of 1000 cum completed. HRT (8526m): Excavation completed and 1.6km lining completed. Surge Shaft: open excavation top 33982 cum / 38500 cum completed. Pressure Shaft: Excavation completed Power house and Tail race channel- 87446 cum out of 92500 cum excavation completed. 10402 cum out of 14325 cum concreting completed.	- Slow progress of works. - Transmission Line critical.
22.	Tangnu Romai-I M/s Tangnu Romai Power generation 2x22= 44 MW 30.11.2007 (HPSEB) Broad Features: Barrage at EL ± 2555 m HRT-3.1m dia & 7.220 km length Surge Shaft- 5m dia, Top Level 2570 m & Bottom Level 2520 m Penstock- 2 m dia & 609.3 m length P.House- Surface Turbine – Vertical Francis Cost: Original: 255.00 Latest: 255.00	H.P. <u>2014-15</u> 2018-19 (Subject to Re-Start of works)	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. 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.	- Slow progress of works HRT critical, poor geology. - Works are stalled due to finance issues.
23.	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 : 520.00	Uttara khand <u>2013-14</u> 2017-18 (Subject to active start of works)	Dam concreting: 17800/18000 cum concreting completed. P.H.: Excavation completed & Concreting in progress. HRT: Excavation 95.7% 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 & commissioned laying of earth mat has been completed.	- Works severely affected due to flash floods in June, 2013.
24.	Singoli Bhatwari M/s L&T 11.07.2008 3x33 MW = 99 MW Broad Features: Barrage-FRL 1017 m, MDDL 1009 m, Barrage Top 1020m HRT- 4.65m dia & 11.870m length Surge Shaft-10 m dia & 102.85 m length	Uttara khand <u>2015-16</u> 2020-21 (Subject to active start of works)	River diversion – Completed. Dam & Dykes/Barrage: Excavation 94612.5 / 90744 cum and concreting 51787 / 70220 cum completed. HRT: Excavation 9199m / 11257 m completed. Overt Concrete Lining 2041 m / 11257m completed. Invert Lining 1977m / 11257m completed. Pressure Shaft: Excavation 465 / 506 m completed. PH: Excavation completed & concreting 9787.10 / 17693 cum completed. Surge Tank: Excavation completed.	- Works severely affected due to flash floods in June, 2013.

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
	Pressure Shaft-One, 3.80m dia & 358m length Penstock- 3 Nos., 2.20 m dia & 34m, 42m, 48m long. P. House-Surface Turbine-Vertical Francis TRT- Open Channel, 650m length Cost : <u>Original</u> : 666.47 Latest : 666.47			
25.	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: <u>Original:</u> 1569.27 Latest: 6793.00	<u>M. P.</u> <u>2001-02</u> 2017-18 (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. In this regard, a high level committee under the chairmanship of Additional Chief Secretary(Finance) GoMP, was formed on 16 th Oct, 2014 to find ways to complete the project. The committee has submitted its report on 2.5.2015. The committee has recommended three scenarios for commissioning the Maheshwar Project. Under the first scenario, another attempt to complete the project with the present private developer has been envisaged. Timeline for first Scenario has elapsed (2nd August 2015) without the promoter complying with its requirements. Currently, the process for revival of project under second scenario is underway which envisages Government companies have to acquire majority equity in the project with management control .	- Completion of R&R works and E&M works. - Works held up due to Fund constraints with developer.
26.	Teesta-VI LANCO 27.12.2006 4x125= 500 MW Broad Features: Barrage: 34.27m high HRT- 2nos,13.7km long Pressure shaft: 4nos. 5.4m dia. 130m av length, TRT: 4nos 250m av length, 8.5m dia. PH- Under ground Turbine- Francis Cost: <u>Original:</u> 3283.08 Latest : 5400.00	<u>Sikkim</u> <u>2012-13</u> <u>2021-22</u> (Subject to re-start of works)	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. Transformer Cavern: Excavation completed & concreting 2539/7101 cum completed. TRT: Excavation & Lining almost completed.	- Works held up due to financial crunch with the developer.
27.	Rangit-IV Jal Power corp. Ltd. 06.07.2007 3x40= 120 MW Broad Features:	<u>Sikkim</u> <u>2012-13</u> 2018-19 (Subject	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	- Financial crunch with the developer. - Work held up since Oct, 2013

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: Concrte 44m high .HRT : D- 6.4m L- 6.5km Power House : Surface Turbine: Francis Cost: Original:726.17 Latest : 1600.37	to re-start of works)	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.	due to fund constraints.
28.	Bhasmey Gati Infrastructure 2x25.5= 51 MW Broad Features : Dam-33.2m High, Symmetrical gravity HRT-5.3m dia &5.132 km length , Circular. Surge Shaft- 89.8m Hight & 14m dia. P.House-Outdoor Turbine-VF TRT-2 Nos, L- 50m each. Swityard- 132/11 KV Cost :Original : 408.50 Latest : 408.50	<u>Sikkim</u> <u>2012-13</u> 2019-20	Project is in initial stage of construction. River diversion achieved. Barrage: 25% excavation completed. HRT: 759m out of 5471 m excavation completed. PH: 90% excavation completed.	- Slow progress of works
B. Hydro Capacity for benefits beyond 12th Plan				
Central Sector				
29.	Tehri PSS, THDC, 18.7.06 Nov-11 (Revised CCEA) 4x250=1000 MW Broad Features : Surge Shaft: U/s – 2 nos. D/s – 2 nos Power House: U/G TRT: 2, Dia 9m and Length 1070m + 1160m Turbine: VF reversible pump turbine Cost: Original: 1657.60 Latest: 2978.86	<u>Uttara khand</u> <u>2010-11</u> 2019-20	EPC contract has been awarded on 23.06.11 with commencement date from 27.07.11. Upstream (Tehri Dam) and Downstream (Koteshwar Dam), intake and Head Race Tunnels (2 Nos.) already completed alongwith Tehri Stage-I works. Surge Shafts upstream (2nos- 140m): After completion of Crown slashing, benching is in progress. Butterfly Valve Chamber (BVC): Crown slashing with steel ribs completed. Benching work and additional stabilization work i.e. rock bolting and cable anchoring is in progress. Penstock Assembly Chamber (PAC): Crown slashing with steel ribs completed. Benching will start after two benches of BVC. PH: Underground excavation of PH 156937 Cum out of 220000 Cum completed. Surge Shafts downstream (2nos): After completion of excavation of Top Chamber, stabilization work for Shaft widening is in progress. TRT (2 Nos- 1070m & 1160m): In Heading & Benching 1281.40m and 280.50m excavation has been completed respectively. E&M Works: Manufacturing & supplies are in progress.	- Poor Geology in underground works of BVC, PAC, TRT, PH Cavern etc. - Law and order issues at Asena Quarry. -Diversion of land for dumping area at village chopra.
30.	Lata Tapovan, NTPC Aug-2012 3x57= 171 MW Broad Features : Barrage–14 bays of 11m each	<u>Uttara khand</u> <u>2017-18</u> 2021-22 (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.	-Works of barrage & HRT yet to start due to protest by villagers. -Construction work stopped vide Hon'ble Supreme Court order

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
	HRT- 7.51 Km, 4.7m dia P.House- underground Turbine- V.Francis Cost: <u>Original: 1527.00</u> Latest: 1527.00			dated 7.5.14.
31.	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: 2491.58	<u>Uttara</u> <u>khand</u> <u>2013-14</u> <u>2019-20</u>	Civil and HM works awarded on 17.01.2014. E&M works awarded on 18.11.2014. Heading & Benching excavation for Diversion Tunnel completed. Cut & Cover at inlet & Outlet and Overt Lining is under progress. River diversion is re-scheduled on 8 th Dec 2016. Excavation for de-silting Chamber 3 no. is under progress. Development for TBM platform excavation 95% has been completed. Construction of Adits and infrastructure works are under progress.	-Frequent disruption of works by local people.
5b.	Subansiri Lower NHPC 09.09.2003 8x250= 2000 MW 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> <u>Latest: 17435.15</u> (02/16 PL)	Arunachal <u>Pradesh</u> Assam <u>2009-11</u> <u>2020-21</u> (Subject to re-start of works)	Dam: Excavation- 169441 cum completed out of 173000 cum. Concreting: 575426 cum completed out of 1823782 cum. Intake Structure: 261377 cum concreting completed out of 279454 cum. Head Race Tunnel (I-VIII): 7050 m heading excavation completed out of 7124m. 4279 m benching excavation completed out of 7124 m. 3199 m concrete overt lining completed out of 7124 m. Surge Tunnels (8 nos.): 3109 m heading excavation completed out of 3545 m. Pressure Shaft- Vertical Pressure Shaft Slashing: 199 m excavation out of 384 m completed. Surface Power House: Concreting: 124887 cum out of 302600 cum completed. E&M Works: Unit #1: Elbow erection (1 to 6) and Turbine stay ring and Spiral case erection completed. Unit #2: Elbow erection (2 to 6) and Turbine stay ring and Spiral case erection completed. HM Works: Erection of diversion tunnel gates 23% completed. Erection of Intake-5: 2% completed. Erection of Intake 7 & 8 – 20% completed each. 201 m pressure shaft steel liner erected out of total 1594 m. Work stopped since 16.12.11 due to agitation launched by various activists against construction of Subansiri Lower HE Project. In this regard, as decided in the tripartite meeting dated 06.12.13, discussions between Expert Group formed at the request of AASU (All Assam Students Union) and Experts of Govt. of India & NHPC was held on 23.12.13. Last meeting between Expert Group of Assam and Experts of Govt. of India was held on 02.06.14 at Guwahati. Thereafter, meetings with Expert Group of Assam on 10.12.2014 and on 21.02.2016 & 22.02.2016 with various Stakeholders of Subansiri Lower Project on 11.12.2014 were held to discuss the issues. The meetings were Co-chaired by Hon'ble MOS (I/C) for Power, Coal and New & Renewable Energy and Hon'ble MOS (I/C) for Skill Development, Entrepreneurship,	- Signing of MoU with State Government of Assam. - Issue of Downstream Impact Assessment & demand for stoppage of works by anti dam activists. -Since 16.12.2011 works stopped due to agitation by various activists of Assam. -Case in NGT.

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
			<p>Youth Affairs & Sports.</p> <p>As decided in stakeholders meeting on 11.12.2014, a Project oversight Committee (POC) was constituted vide MoP's OM dated 13.01.2015. Due to difference in opinion on some issues mainly seismic issues, the Expert Group of Assam has submitted the final report to MoP & members of POC from Government of India have also submitted a separate report to MoP.</p> <p>Matter related to Project is being heard by NGT. NGT allowed NHPC to undertake emergency maintenance works for safety and protection of the public & property.</p>	
32.	<p>Ramam-III NTPC Hydro Ltd. 10.09.14 3x40 = 120 MW Broad Features : Run of the River Scheme Cost : Original: 1381.84 Latest : 1381.84</p>	<p><u>West Bengal</u> <u>2019-20</u> <u>2019-20</u></p>	<p>Infrastructure works are in progress. Civil & HM works of Barrage including Part HRT Package awarded to M/s Simplex –Apex JV on 10.09.14. Civil & HM works of Power House including Part HRT awarded to M/s SEW Infrastructure Ltd. on 12.12.2014. Electro-Mechanical (EM) Package awarded to M/s BHEL in Feb-2015.</p> <p>First stage river diversion done on 23.03.2016. Adit-1 Excavation completed. Excavation of other Adits is in progress.</p>	
	State Sector			
33.	<p>Shahpurkandi Irrigation Deptt. &PSPCL 04.05.2011 3x33+3x33+1x8=206 MW Cost: Original: 2285.81 Latest 2285.81</p>	<p><u>Punjab</u> <u>2017-18</u> <u>2019-20</u> (Subject to re-start of works)</p>	<p>Civil works of Main Dam and Hydrel Channel awarded and are under construction Main Dam: 1286552 cum Excavation out of 1981500 cum and 89286 cum concreting out of 1135295 cum completed. Hydel Channel: 2674210 cum excavation out of 3900000 cum and 89286 cum concreting out of 1135295 cum completed.</p>	<p>-Works of Dam stopped since 29.08.2014 due to inter-state dispute between states of J&K & Punjab.</p>
34.	<p>Shongtong Karcham H.P. Power Corp. 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: 3316.35</p>	<p><u>H.P.</u> <u>2017-18</u> <u>2019-20</u></p>	<p>Excavation & lining of Diversion Tunnel completed. HRT: Excavation of HRT 2070 m out of 8095 m completed. Surge shaft: 38.70m out of 100m pilot hole completed. Power House: Benching of Power House cavity is in progress.</p> <p>Works hampered in some portion of HRT due to re-location of Army ammunition depot. Issue is under resolution between Army, GoHP & HPPCL.</p>	<p>-Issues with Army authorities for shifting of ammunition depot.</p>
35.	<p>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</p>	<p><u>Uttarakhand</u> <u>2015-16</u> <u>2018-19</u></p>	<p>Civil Works: Dam : 2.875 lakh cum / 3.923 lakh cum of Excavation completed. 12320cum out of 4.417 lakh cum of Concreting completed. Diversion Channel : Completed. Head Race Tunnel (2.7 Km): Excavation of HRT completed. 870m Overt Lining and 607m Invert Lining out of 2672m has been done. Pressure Shaft: 1600cum out of 5000cum excavation completed. Surge Shaft: Excavation completed.</p>	<p>-Dam and E&M works are Critical. -Local issues.</p>

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
	Turbine- VF. Switchyard: 220 Kv. Cost: Original: 936.23 Latest: 936.23		E & M works Work has been awarded to BHEL. .	
36.	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: 226.40 Latest: 379.78	<u>Maha</u> <u>rashtra</u> <u>2017-18</u> <u>2019-20</u> (Subject to active 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.
37.	Polavaram Polavaram Project Authority 21.07.2010/ 25.02.2009 12x80= 960 MW Cost: Original: 16010.45 Latest: 16010.45	Andhra Pradesh <u>2021-22</u> <u>2021-22</u> (Subject to active start of works and award of E&M works)	Pre-construction and Infrastructural works are in progress. Civil Works:- Civil works awarded on 01/2012-13, 02.03.2013. ECRF DAM: Earth work of 73.668 L.Cum of total 829.451 L.Cum is completed. SPILLWAY: Earth work of 51.4273 L.Cum of total 162.9584 L.Cum is completed & embankment of 1.345 L.Cum of total 2.4907 L.Cum is also completed. POWER HOUSE: Earth work of 37.2413 L.Cum of total 111.7206 L.Cum is completed & embankment of .9022 L.Cum of total 30.3694 L.Cum is completed. B) HM & E&M Works:- H.M & E&M works are yet to be awarded.	- Works under progress, however there is Inter State Issue-Public hearing for construction of protective embankment to be held in Oddisha and Chhattisgarh as desired by MOEF. - Funds Constraint
	Private Sector			
38.	Ratle Ratle Hydro Electric Project Pvt. Ltd. 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 Average Gross Head-100.39m	<u>J&K</u> <u>2017-18</u> <u>2021-22</u> (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. The infrastructure works of Road & Bridges was under progress and erection of upstream Bridge completed & downstream Bridge was in progress. Works have been suspended at Project site due to frequent local disturbances since 11.07.2014. Power Development Department, GoJK have been requested to resolve the various critical issues including 1) resolving of disturbance at site 2) restoration of congenial atmosphere and 3) IWT issues for resumption of works at site. Excavation of Diversion Tunnel #1 : 298m (63%) out of 472m & Diversion Tunnel #2 : 192m(35%) out of 552m completed.	- Presently works are under hold. - Local 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
	Addl. Unit(30MW) Housed in Main P.H. Cavity) Rated Head-98.9m Cost : <u>Original: 5517.02</u> Latest : 6257.00			
39.	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: Original 1696.93 Latest 1696.93	<u>H.P.</u> <u>2017-18</u> <u>2019-20</u>	-Civil Works awarded to M/s Gammon India Ltd. on 29.05.2013. - River diversion achieved. -HRT and Adits work are in progress. 4 out of 5 adits excavation completed. -Excavation of powerhouse completed and concreting is in progress. -Excavation of pressure shaft just started.	-Slow progress of works -Poor approach roads -Transmission Line DPR clearance
40.	Chanju-I M/s IA Energy 24.04.2010 3x12=36 MW Cost :Original : 295.09 Latest : 295.09	<u>H.P.</u> <u>2014-15</u> <u>2016-17</u>	Barrage: 284850 cum excavation out of 287700 cum has been completed. Concreting 34513 cum out of 35150cum completed. Desilting Basin including Flash arrangement: Excavation & concreting completed. HRT : Excavation completed & concreting 5229m / 5335m completed. Surge Shaft: Excavation completed & concreting 220m / 360m completed. Penstock/Pressure Shaft: Excavation completed. Concreting 640m out of 720n completed. Power House: Excavation completed. 6497 cum/6640 cum concreting completed. TRT (56m): Completed. E&M Works: Unit #1 & #2: Boxed up. Unit#3: Erection is in progress.	
41.	Tashiding M/s Shiga Energy Pvt. Ltd. 28.03.2011 2x48.5 = 97 MW Broad Features : Barrage-EL 917m HRT-4.5 m dia & 5.437 km length , Surge Shaft- 61.058m Height & 8.5m dia. Penstock- Length upto Bifucation 441.53 m After bifurcation 25 m & 30 m long P.House-Surface TRT- Open Channal & 78.5 m length. Swityard- Outdoor, 220 KV Cost :Original : 465.95	<u>Sikkim</u> <u>2015-16</u> <u>2016-17</u>	Barrage: Excavation & concreting completed. HRT (Total- 5437m): Excavation completed. Concreting 100% Invert & 98% Overt completed. Surge Shaft: Excavation completed. Concreting lining up to 916.77m EL completed. Penstock: Underground excavation & ferrule erection completed. Surface penstock erection work under progress. Power House: Concreting almost completed. E&M Works: Stator of both the Units lowered. Rotor lowered into pits.	- Evacuation of power.

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 : 465.95			
42.	Dikchu Sneha Kinetic Power Projects Pvt. Ltd. 21.10.2011 2x48= 96 MW Broad Features : Dam-35m High, Concrete Gravity HRT-4m dia & 4.6 km length Circular. Surge Shaft- 65m High & 9m dia. P.House- Underground Turbine-Vertical Francis TRT-4m dia & 1000m length Swityard- 60mx30m size Cost : Original : 639.57 Latest : 639.57	<u>Sikkim</u> <u>2017-18</u> <u>2016-17</u>	Dam: Works completed. HRT: Excavation completed. Overt Lining 5337/5475 m, Invert lining 4134/5475 m completed. Power House: Excavation & concreting completed. Approximately 95% of the project works completed. Balance of works scheduled to be completed shortly and project is scheduled to be commissioned in the year 2016-17. Critical:- Completion of pressure shaft lining. Pressure Shaft: Vertical Pressure shaft: lowering of ferrule 157.5m/306.4m completed. Horizontal Pressure shaft: 989.5 cum/1020 cum completed.	
43.	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 : 498.00 Latest : 498.00	<u>Sikkim</u> <u>2017-18</u> <u>2019-20</u> (Subject to Re- Start of works)	EPC contract awarded to M/s Coastal in February, 2012. Diversion Tunnel: Excavation is under progress. HRT: Excavation 1123cum out of 64042cum completed. Surge Shaft: Excavation 1625cum out of 4948cum completed. Concreting 37/1667 cum done. Pressure shaft: Excavation 13759cum out of 46115cum completed Power House: Excavation of surface power house is being taken up.	Works are stalled due to non releasing of funds by lenders because of Power evacuation and land acquisition issues.
44.	Rongnichu Madhya Bharat Power Corporation Ltd. 01.10.2008 2x48= 96 MW Cost : Original : 491.32 Latest : 491.32	<u>Sikkim</u> <u>2015-16</u> <u>2019-20</u>	The civil works have been awarded to M/s SEW Infrastructure Ltd. and E&M works to M/s Voith Hydro Power Pvt. Ltd. Award of HM works is likely to be placed by August, 2012. Barrage : Excavation completed 24556/40674 cum concreting completed. Desilting basin: 3976 / 26976 cum excavation completed. 5933/26584 cum concreting completed. HRT: 69% of Civil Works completed. Surge shaft: 49m excavation out of 88m completed. Power House: 14302 cum/29626 cum of Excavation completed. 5459/22429 cum Concreting completed.	- Land acquisition. - Poor geology.
45.	Panan Himagiri Hydro Energy Pvt. Ltd. 07.03.2011 4x75= 300 MW Broad Features :	<u>Sikkim</u> <u>2018-19</u> <u>2020-21</u>	Civil works awarded on 22.02.2014. Infrastructural works and geological investigations are in progress. Starting of civil construction works in full swing was earlier held up for want of the National Board of Wild Life (NBWL) clearance. NBWL clearance obtained in December, 2015.	- NGT Issue.

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-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-Height P.House-Surface Turbine-Vertical Francis Cost : Original: 1833.05 Latest :1833.05	(Subject to active start of works)	However, there is a case challenging the Eco-Sensitive zone notification of MoEF & Climate Change which is pending in the National Green Tribunal. Since there is no stay, so developer to start works shortly.	
46.	Gongri Dirang Energy Pvt. Ltd. 04.02.13 2x72= 144 MW Broad Features : Barrage-H-29m, L-216.5m MDDL- EL 1447m Spillway-2nos. Radial Gates; 2 Nos. 10.5m x 13m Intake: EL1438m Desilting Chambers : 2 nos. (260Lx13Wx16H) HRT- modified horse shoe, 5.8 m dia & 7137m length , Surge Shaft- 92 m High & 13m dia. Pressure Shaft : 4.4m dia, 647.26m length bifurcating into 3.1m dia & 28.51m & 34.5m length P.House-Surface Turbine- Vertical Francis Cost : Original: 1436.27 Latest :1436.27	Ar. Pradesh <u>2017-18</u> 2019-20 (Subject to Re-Start of works)	EPC contract for all works awarded to Patel Engineering Ltd., Mumbai on 22-11-2011. TEC accorded on 04-02-2013 & Financial closure achieved on 15-02-13. The EPC contract for E&M works has been awarded to M/s. Andritz Hydro Pvt. Ltd. Consent to establish from State Pollution Control Board was issued on 19-05-2014. Construction of 1 no. of Bailey bridge completed and remaining 2 nos. Bailey bridges under construction. Barrage: 23400cum excavation out of 1.185 Lakh cum completed. Power House & Switchyard : Open Excavation 68500cum out of 2.15 Lakh cum completed.	-Works awarded on 22.11.2011. However, consent to establish from SPCB was issued on 19.05.2014 -Works stopped since 2 nd week of April, 2016 due to fund flow problem with promoter / lenders.

Status of 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.	<p>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 Commissioning Schedule: Nov' 2016 Anticipated commissioning schedule : 2019-20</p>	<p>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: Sudkabel Gmbh on 27.05.2011 Package-V: Schneida Electric Ltd. on 21.11.2013. Transmission Works: Joyti Structures & Gammon (India) JV on 12.08.2010 (Amended on 10.6.2013)</p>	<p>Excavation of Dam 64.86 lac cum out of 70.51 lac cum is completed. Concreting yet to be taken. Excavation of dam pit was hampered due to movement & subsidence at right bank hill . Desilting chamber excavation completed and concreting is completed. HRT excavation and lining completed. Boring of surge shaft completed in May'2013. 109m lining completed out of 115m Pressure shaft excavation is completed and back fill concreting 1147m completed out of 1460m. Power house excavation is completed and construction of service bay also completed TRT excavation completed and 562m overt lining completed out of 1261m.</p> <p>E&M works:- work is progressing as per schedule.</p> <p>Critical: Movement & subsidence at right bank hill. Completion of dam works.</p>
2.	<p>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 Commissioning Schedule: June' 2017 Anticipated commissioning schedule: 2018-19</p>	<p>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 Transmission Works: Bhutan Power Corp.Ltd on 21.03.2013 (on deposit work basis)</p>	<p>Excavation of dam 30.03 Lac cum out of 30.5 Lac cum completed. Adverse geological situation faced at the left bank of the dam. HRT heading excavation 6.48 Km out of 8.5 Km completed. Excavation of surge shaft completed in Dec'2013.</p> <p>Connecting adit from MAT to top of MH completed. On 02-03 March,2016, massive rockfall from the roof of downstream Surge Gallery occurred.</p> <p>TRT Heading Excavation: 2827m out of 3163m completed.</p> <p>Critical: Dam is critical. Adverse geological situation faced at the left bank of the dam.</p>
3.	<p>Mangdechhu HEP 4x180=720 MW MHPA, Bhutan Date of Approval:: 30.04.2010 Broad Features : Dam – 114m High, 141.28m long, Concrete gravity HRT- 6.5m x 13.561 km Pressure Shaft: Two nos. 3.5mx1856m each Surge Shaft:13.5 m x152.0m TRT: 8.0m x1295m P.House-Underground Turbine- Pelton Vertical axis SWYD- 400 kV Commissioning Schedule: Sep '2017 Anticipated commissioning schedule: April '2018</p>	<p>Civil Works: Package-I : JP Associate Ltd. on 20.03.2012 Package-II: Gammon India Ltd on 20.03.2012 Package-III:JP Associate Ltd. on 20.03.2012 H&M Works: Package-IV: PES Engg Pvt.Ltd. on 20.03.2012 E&M Works: Package-I: BHEL Ltd. on 07.01.2013 Package-II: Alstom T&D India Ltd. on 20.03.14 Package III: M/s Hyosung Corp. South Korea on 22.04.15 Package IV: M/s LS Cable & Systems Ltd., South Korea on 22.04.2015 Transmission Works: Kalpataru Power Trans Ltd. on 01.01.2013</p>	<p>Dam: Excavation is almost completed. Concreting started in May,15 and 222540 cum completed out of 4,50,000 cum. 10.91 Km excavation and 1.367 km Overt lining of HRT completed out of 13.52 km. Pressure shaft excavation in progress. Surge Shaft: 38.15m lining completed out of 143.3m. 1282m Overt lining of Main TRT completed out of 1334.55m.</p> <p>E&M works: Laying of earth mats completed in TRT, transformer cavern and Unit-I,Unit-II & Unit-IV in Power house. Erection of pit liner completed in Unit 1,2 & 4.</p> <p>Critical: HRT & Pressure Shaft are critical.</p>

CHAPTER 7

Financial Status of H.E. Projects 12th Plan and Beyond

Figures in Crores

Sl. No. (State)	Name of project	Capacity (MW)	Benefits (MW)	Sancd. Cost (PL)	Latest/ Ant. Cost (PL)	Total Expend. upto Mar,12	Total Expend. upto Mar,13	Total Expend. upto Mar,14	Total Expend. upto Mar,15	Total Expend. upto Mar,16	Total Expend. During 2016-17 (Upto)
Commissioned during 12th Plan											
Central Sector											
1	Uri-II (NHPC) J&K	4x60	240	1724.79 (02/2005)	2305.65	1693.59	1928.07	2096.81			
2	Chamera-III (NHPC) H.P.	3x77	231	1405.63 (02/2005)	2084.01	1795.93	1842.24				
3	Chutak J&K	4x11	44	621.26 (12/05)	913.25	731.93	775.32				
4	Teesa Low Dam - III (NHPC) W.B.	4x33	132	768.92 (12/02)	1628.00	1467.53	1686.98	1706.39			
5	Nimoo Bazgo J&K	3x15	45	611.01 (12/05)	936.10	724.94	840.91	883.85			
6	Parbati -III(NHPC) H.P.	4x130	520	2304.56 (05/2005)	2716.00	1760.29	2077.96	2349.46			
7	Ram Pur (SJVNL) H.P.	6x68.67	412.00	2047.03	3288.28	1659.73	2380.13	3123.29	3337.91	3337.91	
8	Kol Dam (NTPC) H.P.	4x200	800	4527.15 (12/2001)	7220.00	4270.00	4937.00	5878.00	6544.00	6544.00	
9	Teesa Low Dam-IV(NHPC) W.B.	4x40	80.00	1061.38 (3/05)	1929.15	1105.00	1314.17	1480.50	1724.70	2013.84	14.74
Sub-total:Central Sector			2504.00								
State Sector											
9	Bhawani Kattlai Barrage - II T.N.	2x15	30	99.15 (1995)	497.46	465.83	477.06	493.40			
10	Bhawani Kattlai Barrage - III T.N.	2x15	30	99.75 (1999)	493.20	368.52	379.87	413.64			
11	Myntdu, Meghalaya	2x42+1x4 2	42	363.08 (1999)	1173.13 (2010)	968.00					
12	Baglihar-II J&K	3x150	450	3113.19	3113.19	191.72					
13 ^P	Lower Jurala Telangana	6x40	160	90834 (05/07)	196914	88600	110952	133289	157283	18314	(Mar-16)
14	Kashang-I (Stg-II & III inclus.) H.P.	1x65	65	47802 (03/08)	47802	459.64	608.74	736.55	843.44	955.21	
Sub-total:State Sector			777								
Private Sector											
13	Budhil H.P.	2x35	70	418.80	-						
14	Chujachen Sikkim	2x49.5	99	448.76	1044.50	966.20	1191.26				(Feb/2013)
15	Shrinagar Uttarakhand	4x82.5	330	1699 (08/07)	2069	3328		5088	5088.00		(Jan-15)
16	Jorethang Loop Sikkim	2x48	96	543.15	543.15						
Sub-total:Private Sector			595.00								
iii) Under Execution for benefits during 12th Plan and beyond											
Central Sector											
1	Kishanganga (NHPC) J&K	3x110	330	3642.04 (09/07)	5751.47	1403.13	2184.17	3279.46	3912.95	4476.20	141.31 (Jun-16)
2	Parbati -II(NHPC) H.P.	4x200	800.00	3919.59 (12/2001)	8398.76	3363.07	3854.20	4383.57	4950.04	5557.21	151.55 (Jun-16)
3	Tehri PSP (THDC), Uttarakhand	4x250	1000.00	1657.60 (12/05)	2978.86	320.76	466.42	692.34	1180.43	1706.72	79.50 (Jun-16)
4	Tapovan Vishnugad (NTPC) Uttarakhand	4x130	520.00	2978.48 (03/2004)	3846.30	1457.00	1813.00	2078.00	2417.00	2788.00	54.00 (May-16)
5	Lata Tapovan(NTPC) Uttarakhand	3x57	171.00	1527.00 (07/2012)	1527.00	36.00	97.00	138.00	139.00	143.00	1.00 (May-16)
6	Vishnugad Pipalkoti (THDC) Uttarakhand	4x111	444.00	2491.58 (3/08)	2491.58	298.92	342.98	479.31	592.44	824.04	25.31 (Jun-16)
7	Teesa Low Dam-IV(NHPC) W.B.	4x40	80.00	1061.38 (3/05)	1929.15	1105.00	1314.17	1480.50	1724.70	2013.84	14.74 (Jun-16)
8	Ramam-III (NTPC) West Bengal	3x40	120.00	1381.84	1381.84				108.00	174.00	18.00 (May-16)
9	Subansiri Lower (NHPC) Ar. Pradesh/Assam	8x250	2000.00	6285.33 (12/2002)	18063.89	5605.94	6203.48	6782.58	7578.63	8367.94	172.36 (Jun-16)
10	Kameng (NEEPCO) Ar. Pradesh	4x150	600.00	2496.90 (03/04)	6085.84	1800.28	2215.94	2846.68	3762.55	4574.80	146.72 (Jun-16)
11	Pare (NEEPCO) Ar. Pr.	2x55	110.00	573.99 (06/07)	1226.27	310.59	517.54	811.78	994.40	1160.87	67.73 (Jun-16)
12	Tuirial (NEEPCO) Mizoram	2x30	60.00	368.72 (06/97)	1381.71	301.15	401.34	573.22	800.74	1005.51	44.24 (Jun-16)
Sub Total: Central Sector			6235								

CHAPTER 7

Financial Status of H.E. Projects 12th Plan and Beyond

Figures in Crores

Sl. No.	Name of project (State)	Capacity (MW)	Benefits (MW)	Sanacd. Cost (PL)	Latest/ Ant. Cost (PL)	Total	Total	Total	Total	Total	Expend. During 2016-17 (Upto)
						Expend. upto Mar,12	Expend. upto Mar,13	Expend. upto Mar,14	Expend. upto Mar,15	Expend. upto Mar,16	
State Sector											
13	Uhl-III H.P.	3x33.33	100	431.56 (09/02)	940.84 (03/08)	754.74	881.49	1004.70	1128.30	1259.29	2.29 (May-16)
14	Kashang -II & III (Kashang-I inc H.P.	2x65	130	601.78	1079.81	459.64	608.74	736.55	843.44	963.45	10.87 (Jun-16)
15	Sainj H.P.	2x50	100	784.56	784.56	272.79	450.48	656.19	839.46	974.89	3.38
16	Sawara Kuddu H.P.	3x37	111	558.53 (03/03)	1181.9	660.18	813.55	959.09	1022.55	1028.62	11.80
17	Shontong Karcham H.P.	3x150	450	2807.83	3316.35		178.89	229.04	270.93	451.19	66.83
18	Vyasi Uttarakhand	2x60	120	936 (2010-02)	936.23				114.53	196.44	33.66 (Jun-16)
19	Shahpurkandi Punjab	3x33+3x3 3+1x8	206	2286	2285.81		299.34	327.73	513.50	557.94	
20	Koyna Left bank PSS Maharashtra	2x40	80	245.02	1494.94	84.80	116.67	128.93	131.60	334.59	
21	New Umtru Meghalaya+B87	2x20	40	226.40	461.27	112.87	167.23	196.67	255.91	301.97	
22	Nagarjuna Sagar T Pool Andhra Pradesh	2x25	50	464.63 (2002)	958.67	463.62	534.62	589.95	872.60	912.10	
23	Polavaram (PPA) Andhra Pradesh	12x80	960.00	16010.45 (02/09)	16010.45 (02/09)			5067.38	5506.86	7364.06	
24	Pallivasal Kerala	2x30	60	222.00 (2004)	284.69 (2007)	146.41	158.54	173.68	178.77	184.71	
25	Thottiyar Kerala	1x30 + 1x10	40	136.79 (2007)	150.02	2.91	16.24	32.05	46.18	52.87	0.01 (Jun-16)
26	Pulichintala Telangana	4x30	120	380.00 (2006-07)	563.49	174.46	217.91	240.94	424.63	425.30	7.51 (Jun-16)
27	Lower Jurala Telangana	6x40	80	908.34 (05/07)	1969.14	886.00	1109.52	1332.89	1572.83	1728.89	44.42 (Jun-16)
28	Teesta St. III Sikkim	6x200	1200	5705.55	11382.00	5475.43	6854.78 (01/2013)	8219.68	9161.70	10888.44 (Mar-16)	11121.82 (May-16)
Sub-total: State Sector			3847								
Private Sector											
29	Ratle J&K	1x30	850	5517.02	5517.02	124.12	373.80				
30	Sorang H.P.	2x50	100	586.00 (2006)	586.00 (2006)						
31	Tidong-I H.P.	2x50	100	543.15 (08/05)	543.15 (08/05)	226.00	250.89	279.89			
32	Tangnu Romai- I H.P.	2x22	44.00	255.00 (2006)	255.00 (2006)	41.37	179.00				
33	Bajoli Holi H.P.	3x60	180.00	1696.93	1696.93		112.00		388.30 (Dec-14)		
34	Chanju-I H.P.	3x12	36.00	295.09	295.09	45.94	152.39	194.66	363.71	509.46	
35	Phata Byung Uttarakhand	2x38	76	520.00 (2007)	520.00 (2007)	364.98	486.96	518.24 (Jun-13)		795.92 (Jun-16)	
36	Singoli Bhatwari Uttarakhand	3x33	99	666.47 (2008)	666.47 (2008)	351.00	485.78	635.13	737.42	848.53	18.81 (Jun-16)
37	Maheshwar M.P.	10x40	400	1569.27 (96-97)	6793.00	2917.70					
38	Teesta St. VI Sikkim	4x125	500	3283.08	5400.00	2086.25	2399.50		3052.22	3144.00 (Jun-15)	
39	Rangit-IV Sikkim	3x40	120	775.30	1668.78	376.36	416.53	563.20 (Sep-13)	804.37 (Aug-15)	816.76 (Jun-16)	
40	Bhasmey Sikkim	2x25.5	51	408.50	408.50	160.90	162.40 (Apr-12)		237.10 (Mar-15)	276.70 (Oct-15)	
41	Tashiding Sikkim	2x48.5	97	465.95	465.95						
42	Dikchu Sikkim	3x32	96	639.57	639.57	99.38 (Nov-11)					
43	Rangit- II Sikkim	2x33	66	498.00	498.00						
44	Rongnichu Sikkim	2x48	96	491.32	491.32						
45	Panan Sikkim	4x75	300	1833.05	2021.90	104.62	117.31	127.40	141.35	154.00 (06-15)	
46	Gongri Ar. Pradesh	2x72	144	1436.27	1436.27		290.21	426.87	468.86	522.86	
Private Sector			3355								
Total (iii): (Under Execution):			13,437.00								

CHAPTER 8
Status of Environmental and Forest Clearance of H.E. Projects for
benefits in 12th Plan & beyond

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 12th Plan								
Central Sector								
1	Uri-II (NHPC)	J&K	4x60	240.00	11.02.04	13.08.04	Not Reqd.	01.09.05
2	Chutak (NHPC)	J&K	4x11	44.00	23.04.04	17.11.05	Not Reqd.	24.08.06
3	Nimoo Bazgo (NHPC)	J&K	3x15	45.00	16.03.04	30.05.05	Not Reqd.	24.08.06
4	Chamera-III (NHPC)	H.P.	3x77	231.00	10.10.03	10.03.05	08.06.04	01.09.05
5	Parabati-III (NHPC)	H.P.	4x130	520.00	12.11.03	16.04.05	13.06.05	09.11.05
6	Ram Pur (SJVNL)	H.P.	6x68.67	412.00	16.12.05	31.03.06	07.04.06	25.01.07
7	Kol Dam (NTPC)	H.P.	4x200	800.00	30.06.02	10.05.2000	23.11.2000	28.10.02
8	Teesta Low Dam-III (NHPC)	W.B.	4x33	132.00	25.06.02	16.07.03	07.04.04	30.10.03
9 ^P	Teesta Low Dam-IV (NHPC)	W.B.	4x40	80.00	23.12.03	31.03.05	12.01.05	30.09.05
Central Sector Totals:				2504.00				
State Sector								
10	Baglihar-II	J&K	3x150	450.00	29.12.10	-	Not Reqd.	29.12.10
11	Bhawani Kattlai Barrage-II	T.N.	2x15	30.00	-	02.01.86	02.01.86	11.06.99
12	Bhawani Kattlai Barrage- III	T.N.	2x15	30.00	-	02.01.86	02.01.86	27.03.02
13	Myrntu	Meghalaya	2x42	42.00	20.09.99	26.09.01	19.06.01	09.06.03
14 ^P	Lower Jurala	Telangana	6x40	160.00	24.07.07	04.05.07	Not Reqd.	27.07.07
15	Kashang-I	H.P.	2x32.5	65.00	-	15.11.02	23.06.04	31.07.08
State Sector Totals:				777.00				
Private Sector								
16	Budhil	H.P.	2x35	70.00	-	28.02.06	19.04.06	02.06.05
17	Srinagar	Utt.	4x82.5	330.00	-	27.07.99	17.04.06	20.07.05
18	Chujachen	Sikkim	2x49.5	99.00	-	09.09.05	09.01.06	30.11.04
19	Jorethang Loop	Sikkim	2x48	96.00	-	26.07.07	12.05.08	26.08.06
Private Sector Totals:				595.00				
Total : Commissioned 12th Plan (up to June-16)				3876.00				
B. Under Execution								
Central Sector								
1	Kishanganga (NHPC)	J&K	3x110	330.00	31.08.05	09.03.06	27.05.08	14.01.09
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	Aug-12
6	Vishnugad Pipalkoti (THDC)	Utt.	4x111	444.00	09/2006	22.08.07	28.05.13	21.08.08
7 ^P	Teesta Low Dam-IV (NHPC)	W.B.	4x40	80.00	23.12.03	31.03.05	30.03.2006	30.09.05
8	Ramam-III (NTPC)	W.B.	3x40	120.00	12.09.06	17.08.07	18.10.08	10.09.14
9	Subansiri Lower (NHPC)	Ar. Pr./Asm.	8x250	2000.00	13.01.03	16.07.03	24.06.2004	09.09.03
10	Kameng (NEEPCO)	Ar. Pr.	4x150	600.00	30.04.91	29.03.01	03.08.2000	02.12.04
11	Pare (NEEPCO)	Ar. Pr.	2x55	110.00	24.09.07	13.09.06	14.03.08	04.12.08
12	Tuirial (NEEPCO)	Mizoram	2x30	60.00				
Sub-total (Central Sector):				6235.00				
State Sector								
13	Uh-III	H.P.	3x33.33	100.00	19.09.02	15.11.02	20.12.02	26.09.03
14	Kashang -II & III	H.P.	2x65	130.00	-	16.04.10	14.01.13	2009
15	Sainj	H.P.	2x50	100.00	-	04.05.09	26.10.09	29.12.10
16	Sawara Kuddu	H.P.	3x37	111.00	June, 07	May, 07	June, 06	June, 07
17	Shongtong Karcham	H.P.	3x150	450.00	16.8.12	19.05.11	22.03.11	-
18	Vyasi	Uttarakhand	2x60	120.00	25.10.2011	22.04.10	14.10.13	25.10.2011
19	Shahpurkandi	Punjab	3x33+3x33+1x8	206.00	08/2009	18.11.81	Not Reqd.	04.05.11
20	Koyna Left Bank PSS	Mah.	2x40	80.00	-	16.05.07	Not Reqd.	20.02.04
21	New Umtru	Meghalaya	2x20	40.00	-	13.03.06	27.09.05	Dec-06
22	Nagarjuna Sagar T Pool	Andhra Pr.	2x25	50.00	30.11.07	14.06.01	11.04.01	17.01.05
23	Polavaram (PPA)	Andhra Pr.	12x80	960.00	21.07.2010	28.07.10	21.07.10	25.02.09
24	Pallivasal Extn.	Kerala	2x30	60.00	31.01.07	Not Reqd.	11.07.07	31.01.07
25	Thottiyar	Kerala	1x30 + 1x10	40.00	05.06.08	Not Reqd.	11.07.07	05.06.08
26	Pulichintala	Telangana	4x30	120.00	-	09.06.2005	20.10.2006	25.04.07
27 ^P	Lower Jurala	Telangana	6x40	80.00	24.07.07	04.05.07	Not Reqd.	24.07.07
28	Teesta St. III (*)	Sikkim	6x200	1200.00	-	04.08.06	02.11.07	12.05.06
Sub-total (State Sector):				3847.00				
Private Sector								
29	Ratle	J&K	4x205=1x30	850.00	-	12.12.12	27.04.12	19.12.12
30	Sorang	H.P.	2x50	100.00	-	07.09.06	Nov, 06	June, 06
31	Tidong-I	H.P.	100.00	100.00	-	18.06.08	18.06.08	23.07.07
32	Tangnu Romai- I	H.P.	2x22	44.00	-	01.05.09	19.01.10	30.11.07
33	Bajoli Holi	H.P.	3x60	180.00	-	24.01.11	08.07.11	30.12.11
34	Chanju	H.P.	3x12	36.00	-	20.04.11	17.02.11	24.04.10
35	Phata Byung	Uttarakhand	2x38	76.00	-	01.05.09	-	30.11.07
36	Singoli Bhatwari	Uttarakhand	3x33	99.00	-	24.08.07	16.01.09	11.07.08
37	Maheshwar	M.P.	10x40	400.00	-	07.01.94	Not Reqd.	29.09.06
38	Teesta St. VI	Sikkim	4x125	500.00	-	21.09.06	25.04.08	27.12.06
39	Rangit-IV	Sikkim	3x40	120.00	-	16.05.07	26.12.07	06.07.07
40	Bhasmey	Sikkim	2x25.5	51.00	-	15.05.07	13.09.10	-
41	Tashiding	Sikkim	2x48.5	97.00	-	29.07.10	06.04.10	06.04.09
42	Dikchu	Sikkim	3x32	96.00	-	01.04.08	22.01.10	21.10.11
43	Rangit- II	Sikkim	2x33	66.00	-	16.04.10	22.10.10	10.2.10
44	Rongnichu	Sikkim	2x48	96.00	-	04.04.07	18.05.09	01.10.08
45	Panan	Sikkim	4x75	300.00	-	02.01.07	21.09.10	07.03.11
46	Gongri	Ar. Pradesh	2x72	144.00	-	07.09.12	19.03.13	04.02.13
Sub-total (Private Sector):				3355.00				
Total : Under Execution				13437.00				

Legends:- *P-Partially Commissioned ; (*) w.e.f. 6-8-15, Teesta Urja Ltd. is a Govt. of Sikkim Enterprise.

Chapter 9
Status of Civil Package Award (First Package) of H.E. Projects
for 12th Plan & beyond

Sl. No.	Name of Project	State	Capacity (MW)	Benefits (MW)	Date of CCEA/ Investment Decision	Date of letter of award (First Package)
A. Commissioned during 12th Plan						
Central Sector						
1	Uri-II (NHPC)	J&K	4x60	240.00	01.09.05	21.09.05
2	Chutak (NHPC)	J&K	4x11	44.00	24.08.06	23.09.06
3	Nimoo Bazgo (NHPC)	J&K	3x15	45.00	24.08.06	23.09.06
4	Chamera-III (NHPC)	H.P.	3x77	231.00	01.09.05	21.09.05
5	Parbati-III (NHPC)	H.P.	4x130	520.00	09.11.05	15.12.05
6	Ram Pur (SJVNL)	H.P.	412	412.00	25.01.07	01.02.07
7	Kol Dam (NTPC)	H.P.	4x200	800.00	28.10.02	12/2003
8	Teesta Low Dam-III(NHPC)	W.B.	4x33	132.00	30.10.03	28.10.03
9 ^P	Teesta Low Dam-IV(NHPC)	W.B.	4x40	80.00	30.09.05	10.05.06
State Sector						
10	Bhawani Kattlai Barrage-II	T.N.	2x15	30.00	11.06.99	03.02.06
11	Bhawani Kattlai Barrage-III	T.N.	2x15	30.00	27.03.02	03.02.06
12	Myntdu	Meghalaya	2x42	42.00	09.06.03	03/04
13	Baglihar-II	J&K	3x150	450.00	29.12.10	31.03.12
14 ^P	Lower Jurala	Telangana	6x40	160.00	07/07	10.02.08
15	Kashang-I	H.P.	2x32.5	65.00	11/01	09.04.09
Private Sector						
16	Budhil	H.P.	2x35	70.00	02.06.05	26.12.05
17	Srinagar	Uttaranchal	4x82.5	330.00	20.07.05	06/2007
18	Chujachen	Sikkim	2x49.5	99.00	30.11.04	12.08.06
19	Jorethang Loop	Sikkim	2x48	96.00	26.08.06	09.03.09
Total : Commissioned (up to June-16)				3876.00		
B. Under Execution						
Central Sector						
1	Kishanganga (NHPC)	J&K	3x110	330.00	20.07.07	22.01.09
2	Parbati-II (NHPC)	H.P.	4x200	800.00	11.09.02	09/02
3	Tehri PSP	Uttarakhand	4x250	1000.00	18.07.06	23.06.11
4	Tapovan Vishnugad (NTPC)	Uttarakhand	4x130	520.00	11/06	11/06
5	Lata Tapovan (NTPC)	Uttarakhand	3x57	171.00	08/2012	17.08.12
6	Vishnugad Pipalkoti (THDC)	Uttarakhand	4x111	444.00	21.08.08	17.01.14
7 ^P	Teesta Low Dam-IV(NHPC)	W.B.	4x40	80.00	30.09.05	10.05.06
8	Ramam-III	W.B.	3x40	120.00		10.09.14
9	Subansiri Lower (NHPC)	Ar.Pr./ Assam	8x250	2000.00	09.09.03	19.12.03
10	Kameng (NEEPCO)	Ar. Pr.	4x150	600.00	02.12.04	08.12.04
11	Pare (NEEPCO)	Ar. Pr.	2x55	110.00	04.12.08	31.08.09
12	Tuirial (NEEPCO)	Mizoram	2x30	60.00	07.07.98	30.08.02
Sub-total (Central Sector):				6235.00	14.01.11(RCE)	
State Sector						
13	Uhl-III	H.P.	3x33.33	100.00	19.09.02	02.04.03
14	Kashang -II & III	H.P.	2x65	130.00	11/2001	11.11.10
15	Sainj	H.P.	2x50	100.00	29.12.10	02.08.10
16	Sawara Kuddu	H.P.	3x37	111.00	06/07	17.07.07
17	Shongton Karcham	H.P.	3x150	450.00	16.08.12	04.08.12
18	Vyasi	Uttarakhand	2x60	120.00	25.10.11	10.12.13
19	Shahpurkandi	Punjab	3x33+3x33+1x8	206.00	04.05.11	11.02.13
20	Koyna Left Bank PSS	Mah.	2x40	80.00	20.02.04	20.06.07
21	New Umtru	Meghalaya	2x20	40.00	Dec-07	20.12.07
22	Nagarjuna Sagar T Pool	Andhra Pr.	2x25	50.00	17.01.05	19.05.05
23	Polavaram (PPA)	Andhra Pr.	12x80	960.00		
24	Pallivasal	Kerala	2x30	60.00	31.01.07	31.01.07
25	Thottiyar	Kerala	1x30 + 1x10	40.00	05.06.08	22.12.08
26	Pulichintala	Telangana	4x30	120.00	25.04.07	01.08.07
27 ^P	Lower Jurala	Telangana	6x40	80.00	07/07	10.02.08
28	Teesta St. III (*)	Sikkim	6x200	1200.00	12.05.06	18.04.07
Sub-total (State Sector):				3847.00		
Private Sector						
29	Ratle	J&K	4x205+1x30	850.00	19.12.12	04.07.13
30	Sorang	H.P.	2x50	100.00	06/06	06/2007
31	Tidong-I	H.P.	100.00	100.00	23.07.07	07.11.08
32	Tangnu Romai- I	H.P.	2x22	44.00	2014-15	14.06.10
33	Bajoli Holi	H.P.	3x60	180.00	30.12.11	29.05.13
34	Chanju-I	H.P.	3x12	36.00	2017-18	23.07.11
35	Phata Byung	Uttarakhand	2x38	76.00	06.10.08	12.04.08
36	Singoli Bhatwari	Uttarakhand	3x33	99.00	11.07.08	20.06.08
37	Maheshwar	M.P.	10x40	400.00	30.12.96	22.02.97
38	Teesta St. VI	Sikkim	4x125	500.00	27.12.06	03/2007
39	Rangit-IV	Sikkim	3x40	120.00	06.07.07	22.11.07
40	Bhasmey	Sikkim	2x25.5	51.00	Dec-08	12.04.10
41	Tashiding	Sikkim	2x48.5	97.00	06.04.09	28.03.11
42	Dikchu	Sikkim	3x32	96.00	21.10.11	22.03.11
43	Rangit-II	Sikkim	2x33	66.00	10.02.10	24.10.11
44	Rongnichu	Sikkim	2x48	96.00	01.10.08	07.04.10
45	Panan	Sikkim	4x75	300.00	07.03.11	22.02.14
46	Gongri	Ar. Pradesh	2x72	144.00	04.02.13	22.12.11
Sub-total (Private Sector):				3355.00		
Total - Under Execution:				13437.00		
Additional						
1	Demwe Lower	Ar. Pradesh	5x342+1x40	1750.00	20.11.09	12/2010
Works on the project yet to start for want of Financial Closure.						

Legends:- ^PPartially Commissioned ; (*) w.e.f. 6-8-15, Teesta Urja Ltd. is a Govt. of Sikkim Enterprise.

CHAPTER 9.1

Ordering Status of TG sets for H. E. Projects for 12th Plan & Beyond

Summary- Units Ordered

Sector	BHEL	China	Others	Total
--------	------	-------	--------	-------

Central Sector

Commissioned	1901.00	0.00	603.00	2504.00
Under Execution	3125.00	0.00	3110.00	6235.00
Sub-total (Central)	5026.00	0.00	3713.00	8739.00

State Sector

Commissioned	0.00	0.00	777.00	777.00
Under Execution	596.00	100.00	2191.00	2887.00
Sub-total (State)	596.00	100.00	2968.00	3664.00

Private Sector

Commissioned	330.00	70.00	195.00	595.00
Under Execution	400.00	0.00	2655.00	3055.00
Sub-total (Private)	730.00	70.00	2850.00	3650.00

Total: Commissioned	2231.00	70.00	1575.00	3876.00
----------------------------	----------------	--------------	----------------	----------------

Total: Under Execution	4121.00	100.00	7956.00	12177.00
-------------------------------	----------------	---------------	----------------	-----------------

Total- Units Ordered	6352.00	170.00	9531.00	16053.00
-----------------------------	----------------	---------------	----------------	-----------------

Summary- Under Execution- 12th Plan & Beyond

Sector	Benefits (MW)	Capacity Ordered			Not yet ordered
		BHEL	Others	Total	
Central Sector	6235.00	3125.00	3110.00	6235.00	0.00
State Sector	3847.00	596.00	2291.00	2887.00	960.00
Private Sector	3355.00	400.00	2655.00	3055.00	300.00
Total: Under Execution	13437.00	4121.00	8056.00	12177.00	1260.00

CHAPTER 9.2
Ordering Status of TG sets of H.E. Projects
for 12th Plan & beyond

Sl. No.	Name of the Project/State	Capacity (No.x MW)	Benefits (MW)	Make/Supplier of TG set	Date of Order
A. Commissioned during 12th Plan					
Central Sector					
BHEL Units					
1	Chutak (NHPC) J&K	4x11	44.00	BHEL	16.08.07
2	Nimoo Bazgo (NHPC) J&K	3x15	45.00	BHEL	12.06.07
3	Parabati-III (NHPC) HP	4x130	520.00	BHEL	29.12.06
4	Ram Pur (SJVN), H.P.	6x68.67	412.00	BHEL	16.09.08
5	Kol Dam (NTPC), H.P.	4x200	800.00	BHEL, Toshiba & Marubeni	07/2004
6 ^P	Teesta Low Dam-IV (NHPC), W.B.	4x40	80.00	BHEL	10.05.07
Sub-total- BHEL			1901.00		
Other Units					
7	Uri-II (NHPC), J&K	4x60	240.00	Alstom, India & France	29.12.06
8	Chamera-III (NHPC) HP	3x77	231.00	M/s Alstom, India & France	23.01.07
9	Teesta Low Dam-III (NHPC), W.B.	4x33	132.00	VA Tech, India	30.07.04
Sub-total- Other units			603.00		
Sub-total (Central Sector):			2504.00		
State Sector					
Other Units					
10	Bhawani Barrage II, T.N.	2x15	30.00	Litostroj Slovenia Koncar, Croatia	27.12.06
11	Bhawani Barrage III, T.N.	2x15	30.00	Litostroj Slovenia Koncar, Croatia	15.11.06
12	Myntdu, (Meghalaya)	2x42	42.00	V.A. Tech, India	30.11.05
13	Baglihar-II, J&K	3x150	450.00	Voith-Andritz consortium, Germany & India	31.03.12
14 ^P	Lower Jurala, Telangana	6x40	160.00	Alstom, India	09.06.08
15	Kashang-I (H.P.)	2x32.5	65.00	Andritz Hydro, India	01.12.10
Sub-total- Other units			777.00		
Sub-total (State Sector):			777.00		
Private Sector					
BHEL Units					
16	Srinagar (Uttarakhand)	4x82.5	330.00	BHEL	04/2007
Sub-total- BHEL			330.00		
Chinese					
17	Budhil (H.P.)	2x35	70.00	Dongfang Elec. Corporation, China	12.07.06
Sub-total- Chinese			70.00		
Other Units					
18	Chujachen (Sikkim)	2x49.5	99.00	Alstom, India	20.12.06
19	Jorethang Loop, Sikkim	2x48	96.00	Alstom, India	1.12.09
Sub-total- Other units			195.00		
Sub-total (Private Sector):			595.00		
Total : Commnd. 12th Plan (upto June-2016)			3876.00		
B. Under Execution for benefits during 12th Plan & beyond					
Units ordered					
Central Sector					
BHEL Units					
1	Kishanganga (NHPC), J&K	3x110	330.00	BHEL	22.01.09
2	Parbati-II (NHPC),(H.P.	4x200	800.00	BHEL	24.12.02
3	Tapovan Vishnugad (NTPC), Utt.	4x130	520.00	BHEL	01/2008
4	Lata Tapovan, Uttarakhand	3x57	171.00	BHEL	12/2012
5	Vishnugad Pipalkoti (THDC)	4x111	444.00	BHEL	18.11.14
6 ^P	Teesta Low Dam-IV (NHPC), W.B.	4x40	80.00	BHEL	10.05.07
7	Kameng (NEEPCO), Ar. Pr.	4x150	600.00	BHEL	03.12.04
8	Tuirial (NEEPCO), Mizoram	2x30	60.00	BHEL	25.10.03 & 01.08.11(Rev)
9	Ramam-III (NTPC)	3x40	120.00	BHEL	10.09.14
Sub-total- BHEL			3125.00		
Other Units					
10	Tehri PSP (THDC)	4x250	1000.00	Alstom, France	23.06.11
11	Subansiri Lower (NHPC), Ar. Pradesh	8x250	2000.00	Alstom, France & India	11.02.05
12	Pare (NEEPCO), Ar. Pr.	2x55	110.00	Andritz Hydro, India	01.10.10
Sub-total- Others			3110.00		
Sub-total (Central Sector):			6235.00		

Sl. No.	Name of the Project/State	Capacity (No.x MW)	Benefits (MW)	Make/Supplier of TG set	Date of Order
State Sector					
BHEL Units					
13	Uhl-III (H.P.)	3x33.33	100.00	BHEL	15.02.07
14	Nagarjuna Sagar Tail, AP	2x25	50.00	BHEL	03.05.06
15	Pulichintala, Telangana	4x30	120.00	BHEL	25.05.07
16	Shahpurkandi, Punjab	3x33+3x33+1x8	206.00	BHEL	28.02.14
17	Vyasi, Uttarakhand	2x60	120.00	BHEL	26.03.14
Sub-total- BHEL			596.00		
Chinese					
18	Pallivasal, Kerala	2x30	60.00	Dongfang Elec.Corp., China	31.01.07
19	Thottiyar, Kerala	1x30 + 1x10	40.00	Chongqing, China	22.12.08
Sub-total- Chinese			100.00		
OTHER UNITS					
20	Kashang -II & III, H.P.	2x65	130.00	Andritz Hydro, India	01.12.10
21	Sawara Kuddu, H.P.	3x37	111.00	Andritz Hydro, India	05.02.09
22	Sainj, H.P.		100.00	Voith Hydro, India	17.08.11
23	Koyna Left Bank PSS, Maharashtra	2x40	80.00	Litostroj Slovenia Koncar, Croatia	16.12.10
24 ^P	Lower Jurala, Telangana	6x40	80.00	Alstom, India	09.06.08
25	New Umtru, Meghalaya	2x20	40.00	V.A. Tech, India	25.02.09
26	Shontong Karcham, H.P.	3x150	450.00	Andritz Hydro, India	04.03.15
27	Teesta St. III, (Sikkim) (*)	6x200	1200.00	Andritz Hydro, India	18.10.07
Sub-total- Others			2191.00		
Sub-total (State Sector):			2887.00		
Private Sector					
BHEL Units					
28	Maheshwar (M.P.)	4x100	400.00	BHEL	25.06.07
Sub-total- BHEL			400.00		
OTHER UNITS					
29	Ratle (J&K)	4x205+1x30	850.00	Alstom, India	31.12.12
30	Sorang (H.P.)	2x50	100.00	Voith Siemens, India	06/2007
31	Tidong-I, (H.P.)	100.00	100.00	Alstom, India	28.02.11
32	Tangnu Romai- I, (H.P.)	2x22	44.00	Andritz Hydro, India	17.04.13
33	Chanju-I, (H.P.)	3x12	36.00	B Fouress, India	21.09.11
34	Phata Byung, (Uttarakhand)	76.00	76.00	Alstom, India	12.04.08
35	Singoli Bhatwari, Uttarakhand	3x33	99.00	Voith Hydro, India	15.06.11
36	Rangit-IV, (Sikkim)	3x40	120.00	Andritz Hydro, India	28.08.09
37	Bhasmey, (Sikkim)	2x25.5	51.00	Voith Hydro, India	14.04.10
38	Teesta St. VI, (Sikkim)	4x125	500.00	Alstom, India	04/2009
39	Tashiding, (Sikkim)	2x48.5	97.00	Alstom, India	21.05.10
40	Rongnichu, (Sikkim)	2x48	96.00	Voith Hydro, India	28.09.11
41	Dikchu, (Sikkim)	3x32	96.00	Alstom, India	07/2011
42	Gongri, (Ar. Pradesh)	2x72	144.00	Andritz Hydro, India	13.12.13
43	Rangit-II, (Sikkim)	2x33	66.00	Gammon India Ltd.	24.03.12
44	Bajoli Holi, (H.P.)	3x60	180.00	Alstom, India	
Sub-total- Others			2655.00		
Sub-total (Private Sector):			3055.00		
Under Execution Total (Units Ordered):			12177.00		
Units not yet ordered					
Central Sector					
Sub-total (Central Sector):			0.00		
State Sector					
45	Polavaram (PPA) Andhra Pr.	12x80	960.00		
Sub-total (State Sector):			960.00		
Private Sector					
46	Panan, Sikkim	4x75	300.00		
Sub-total (Private Sector):			300.00		
Total: (Units not yet ordered)			1260.00		
Total: Under execution			13437.00		

Legends:- *P-Partially Commissioned ; (*) w.e.f. 6-8-15, Teesta Urja Ltd. is a Govt. of Sikkim Enterprise.

Chapter 9.3

Status of ordering of various packages of 12th Plan & beyond Hydro Projects under construction

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value (Rs. Crs.)	Date of Contract (commence ment)/ Completion
Commissioned During 12th Plan							
Central Sector							
1	Uri-II NHPC 11.2.2004/ 01.9.2005 4x60 = 240 MW	<u>J&K</u> <u>NR</u>	Civil works	Construction of Diversion Tunnel and its gate, Concrete Gravity Dam, Head Race Tunnel, Surge Shaft, Pressure Shaft, Under ground Power House, Tail Race tunnel	M/s HCC Ltd.	574.99	<u>21.09.2005</u> 9/2009
				Design, Manufacture, Supply, Erection, Testing & commissioning	M/s Alstom Projects India Ltd & M/s Alstom Power Hydraulique, France	407.98	<u>29.12.2006</u> 03/2010
				M/s Om Metals-SPML (JV)	54.44 crs + € 0.75 million	<u>09.05.2007</u> 31.08.2009	
2	Chamera-III NHPC 10.10.2003/ 01.09.2005 3x77= 231 MW	<u>H.P.</u> <u>NR</u>	Civil works	Construction of Diversion Tunnel and its gate, Concrete Gravity Dam, Head Race Tunnel, Surge Shaft, Pressure Shaft, Under ground Power House, Tail Race tunnel	M/s HCC Ltd.	504.87	<u>21.09.2005</u> 31.1. 2010
				Design, Manufacture, Supply, Erection, Testing & commng.	M/s Alstom Projects India Ltd & M/s Alstom Power Hydraulique France	251.90	<u>23.01.2007</u> 10/2010
				Hydro-Mechanical Packages	M/s Om Metals-SPML (JV)	74.69	<u>26.07.07</u> 15.8.10
3	Chutak NHPC 23.04.2004/ 24.08.2006 4x11 = 44 MW	<u>J&K</u> <u>NR</u>	Civil works	Diversion channel, Barrage, Intake, HRT, Power House, TR	M/s HCC Ltd, Mumbai	410.54	<u>23.09.2006</u> 11/2010
				Generating units, and Auxl.	M/s BHEL	198.06	<u>16.08.2007</u> 02/2010
				Hydro-mechanical works	M/s PES Engineers Private Ltd.	€ 0.32m+ 25.9 crs	<u>06.08.2008</u> 30.09.2010
4	Teesta Low Dam-III NHPC 25.06.2002/ 30.10.2003 4x33 = 132 MW	<u>W.B.</u> <u>ER</u>	Civil works	Construction of Barrage, WCS, Power House and Tail Race works, Diversion works, Switchyard etc.	M/s Patel Engg. Ltd, Mumbai	239.11	<u>28.10.2003</u> 07/ 2007
				Generating Units, Main step up Transformers, Switch Yard, EOT Crane	M/s VA Tech Hydro India Pvt. Ltd. ,Bhopal,	222.78	<u>30.07.2004</u> 10/2007
				Various Gates Packages	M/s Texmaco & M/s Alstom Ltd. Kolkata - Consortium	41.53 Cr. + €2.95 (Ist Contract) + 8.85 crs (IInd contract)	<u>11.02.2005</u> 12/2007
5	Nimoo Bazgo NHPC 16,03.2006/24.08.20 06 3x15 = 45 MW	<u>J&K</u> <u>NR</u>	Civil works	Diversion channel, Dam, Intake, Power House, Swyd	M/s HCC Ltd, Mumbai	383.90	<u>23.09.2006</u> 06/2010
6	Parbati-III NHPC 12.11.2003/09.11.20 05 4x130 = 520 MW	<u>H.P.</u> <u>NR</u>	Civil works	Construction of Rockfill Dam, Intake Structure and part Head Race Tunnel (5.9 km.) etc.	M/s Patel – L&T Consortium M/s Jager – Gammon JV	439.08	<u>15.12.2005</u> 08/2010
				Construction of part Head Race Tunnel (1.97km), SurgeShaft, Pressure Shaft, Power House and Tail Race Tunnel etc.		324.20	<u>15.12.2005</u> 08/2010

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 (commence ment)/ Completion
7	Ram Pur (SJVNL) SJVNL 16.12.2005/25.01.07 6x68.67= 412 MW	H.P. NR	Civil & H&M works	Construction of civil works for HRT (from 51m to 12900m), river diversion works	M/s Patel – Gammon JV, Mumbai	382.44 + USD 9.09 million	<u>01.02.2007</u> 08/2011
				Construction of civil works for HRT (from 12900m to 15088), surge shaft, pressure shaft, Power House & Hydro Mechanical works	M/s Patel – Gammon JV, Mumbai	364.25 + JY 359.13 million	<u>02/2007</u> 04/2011
			E&M works	Turbine generating units and associated auxiliaries	M/s BHEL	476.43 crs + € 15.15m	<u>16.9.2008</u> 15.3.2012
8	Kol Dam NTPC 30.6.2002/Oct.2002 4x200 = 800 MW	H.P. NR	Civil works	Package for Main Dam, Spillway & power intake	M/s Italian Thai Development Public Co. Ltd., Bangkok, Thailand	664.56	<u>12/2003</u> 11/2008
				De-silting arrangement	M/s Afcons & RN Shetty & Co. JV Mumbai	158.37	<u>01/2005</u> 11/2008
				Power House, Penstock Tunnels & Tail Race Channel	M/s Gammon India Ltd., Mumbai	189.22	<u>05/2004</u> 11/2008
				Diversion Tunnel	M/s. Continental Cons Ltd., New Delhi	166.65	<u>06/2002</u> 08/2004
			E&M works	Electro-Mech. Package	M/s BHEL, Toshiba & Marubeni JV	261.35	<u>07/2004</u> 04/2009
				Generator Transformer	M/s BHEL	35.26	<u>03/2005</u> 04/2009
				Switch Yard including civil works	M/s L&T hennai	54.74	<u>10/2005</u> 04/2009
			H&M works	Hydro-Mechanical Packages	M/s. OM Metals & Minerals Ltd., Delhi	37.60 + Euro 1.88 M	<u>08/2003</u> 11/2008
E&M works	Turbine generating units and associated auxiliaries	M/s BHEL	476.43 crs + € 15.15m	<u>16.9.2008</u> 15.3.2012			
9	Teesta Low Dam- IV NHPC 23.12.2003/30.09.20 05 4x40 = 160 MW Partially Commissioned Comm : 80 MW U/C : 80 MW	W.B.. ER	Civil works	Construction of Diversion Arrangmt, Concrete Gravity Dam , PH, TRT	M/s HCC Ltd. , Mumbai	395.90 + US \$ 10.2 Million	10.05.2006 09/2009
			E&M works	Supply, erection, testing & commissng of TG unit	M/s BHEL	247.57	10.05.2007 05/2010
			H&M works	Supply, erection, testing & commissng of gates	M/s Om Metals -SPML JV	88.80	09.05.2007 08/2009
State Sector							
10	Bhawani Kattalai Barrage-II TANGEDCO/ 11.6.99 2x15 = 30 MW	Tamil Nadu SR	Civil works & H&M works	Construction of Power House, including TR	K. Rajagopalan & Co. Mettur and M/s Shri Saravana Enterprises, Madurai Consortium	40.22	<u>24.02.2006</u> 23.08.2008
				Construction of Barrage & Gates	K. Rajagopalan & Co. Mettur and M/s Shri Saravana Enterprises, Madurai Consortium	44.75	<u>27.04.2007</u> 26.10.2009
			E&M works	Turbine Generating units and auxiliaries	M/s Litostrój, Slovenia & M/s Koncar Croatia	Euro 15.24 M + 23.685 Cr	<u>27.12.2006</u> 27.05.2009
11	Bhawani Kattalai Barrage-III TANGEDCO/ 27.03.2002 2x15 = 30 MW	Tamil Nadu SR	Civil works & H&M works	Construction of Power House, including TR	M/s East Coast Construction & Industries, M/s General Mechanical works, Chennai	39.99	<u>03.02.2006</u> 21.08.2008
				Construction of Barrage & Gates	M/s East Coast Construction & Industries, M/s General Mechanical works, Chennai	28.23	<u>11.10.2006</u> 01.05.2009
			E&M works	Turbine Generating units and auxiliaries	M/s Litostrój, Slovenia & M/s Koncar Croatia	Euro 15.24 Million + 23.685 Cr	15.11.2006 <u>(27.12.2006)</u> 27.05.2009

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value (Rs. Crs.)	Date of Contract (commence ment)/ Completion
12	Myntdu, MeECL 20.09.99/ 2x42 = 84 MW	<u>Megha laya NER</u>	Civil works	Main Dam Civil Works	M/s SEW Construction Ltd., Hyderabad	87.80	<u>03/2004</u> 03/2007
				HRT, Surge Shaft, Intake, pressure tunnel, PH,TRT	M/s Skanska Cementation (I) Ltd., Kolkata	52.84	<u>02/2005</u> 04/2007
					M/s SEW Construction Ltd., Hyderabad	28.62	<u>02/2006</u> 05/2008
			E&M works	Generating unit & equipment	VA TECH Hydro India (Pvt) Ltd. & Vatech Escher Wyss Flovell Ltd.	66.00	<u>30.11.2005</u> 05/2008
			H&M works	Gates, erection, commissioning	M/s Precision, Ahmedabad	25.62	<u>12/2005</u> 06/2007
13	Baglihar-II JKPDC 3x150= 450 MW	<u>J&K N.R.</u>	Civil works & HM works		Jai Prakash Associates, New Delhi	503.50	<u>31.03.2012</u> 03.01.2016
			E&M works		Voith-Andritz Germany/ Voith –Andritz India consortium	Euro 78.698 million + 447.37 Crs.	<u>31.03.2012</u> 15.08.2015
14	Lower Jurala TSGENCO, TEC in July 2007 6x40=240 MW Partially Commissioned Comm : 160 MW U/C : 80 MW .	<u>Telan gana SR</u>	Civil works	.Excavation of approach channel, powerhouse pit, tail race channel	M/s M. Ramakrishna Reddy, Hyderabad	95.99	<u>10.02.2008</u> 09.02.2010
				Weir woks	M/s Patel-VARKS-JV, Hyderabad	79.10	<u>05.09.2008</u> 04.03.2011
			E&M works	Design, manufacture, testing & commng of TG unit and auxiliaries	M/s Alstom Projects, India	13.7m+238 cr (for supply) 0.007.7m + 43.45crs- erection	<u>09.06.2008</u> 08.01.2013
18	Kashang-I H.P. Power Corpn. Ltd. 11.01 / 09.04.2009 1x65= 65 MW	<u>H.P. NR</u>	Civil and H&M works	River Diversion of Kerang Khand, Trench Weir, Connveyance Tunnel, De- sanding Basins, Connecting Tunnel, Kerang- Kashang Link Tunnel, Drop Structure, Underground Balancing Reservoir, HM works St.-II & St.-III	M/s Patel Engg. Ltd.	252.39	<u>12.11.2010</u> 11.11.2014
			E&M works	Included with Kashang Stage-I			
Private Sector							
15	Budhil Lanco Green Power Pvt Ltd TEC on 2.06.2005 by HPSEB/ March 07 (FC) 2x35=70 MW	<u>H.P. NR</u>	Civil works	Dam, HRT Power house etc	Lanco Infratech Limited	198.0	<u>26.12.05</u> 30.04.08
			E&M works	Supply of TG sets	Dongfang electric Corporation limited, China	40.0	<u>12.07.06</u> 31.03.08
				Supply of other E&M equipment and Erection & commissioning of E&M equipment	Lanco Infratech Limited	56.0	<u>17.07.06</u> 30.04.08
			H&M works	Complete civil works and HM works	Lanco Infratech Limited	198.0	<u>26.12.05</u> 30.04.08
			E&M works	Entire EM works including TG sets	M/s Abir Construc. Pvt. Ltd. TG Set- M/s Dongfang Electric Corporation, Ltd.	40.0	<u>18.10.06</u> 04/08
16	Chujachen Gati Infrastructure Ltd, Secunderabad 30.11.2004 (State	<u>Sikkim ER</u>	Civil works	Dam, Tunnel, Power House, Surge-Shaft, Intake	M/s SEW –Prasad JV, Hyderabad	200	<u>12.8.2006</u> 03/2009
			E&M works	Generating units and auxiliaries	M/s Alstom Project India Ltd	158	<u>20.12.2006</u> 06/2009

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value (Rs. Crs.)	Date of Contract (commence ment)/ Completion			
	Govt./ 2x49.5= 99 MW		H&M works	Design Engineering Fabrication & Erection of Gates	M/s SEW Ltd.		<u>08/2006</u>			
17	Srinagar GVK Industries Ltd. 20.07.05/ 3.8.2007 (FC) 4x82.5=330 MW	Uttara khand NR	Civil works	Awarded			06/2007			
			E&M works	Manufacturing., Supply, erection & commng. of TG units	M/s BHEL	442.13	04/2007			
18	Jorethang Loop M/s DANS Energy 2x48 = 96 MW	Sikkim NER	Civil works and H&M works	Barrage , Tunnel , Power House, Surge-Shaft, Intake, Design Engg., Fabrication & Erection of Gates	EPC Contract M/s SEW Infrastructure Limited	463.3	<u>01.12.2009</u> 01.09.2012			
			E&M works	Supply, erection, testing of Generating units and auxiliaries	M/s Alstom Projects India Limited	107.59 + Euro 0.2534	<u>07.08.2009</u> 07.05.2012			
Under Execution										
Central Sector										
1	Kishanganga NHPC 06.08.2003/ 14.01.2009 3x110 MW = 330 MW	J&K NR	Turn key Contract	Dam, Head Race Tunnel, Surge Shaft, Pressure Shaft, Power House, Tail Race tunnel	Turn-key execution by consortium of M/s HCC Ltd., M/s DSD Noell Gmbll, Germany and M/s BHEL with M/s HCC as lead partner.	1925.84	<u>22.01.2009</u>			
				Supply of H&M Plant & Machinery		Euro 2.70 crs + 15.24 crs				
				Erection, Testing & Commissioning		Euro 0.10 + 25.17 crs				
				Supply of E&M Plant & Machinery		Euro 0.55 crs + 398.95 crs				
				Erection, Testing & Commissioning		Euro 0.12 crs + 50.06 crs				
2	Parbati-II NHPC 12.10.1999/ 11.09.2002 4x200 = 800 MW	H.P. NR	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> 10.09.2007			
				Lot-2: Civil & HM works of HRT (3500-24733m)	M/s Himachal JV	419.89	11.09.2002 10.09.2007			
			Contract terminated in March-12 and Fresh awarded as under.							
			Civil works	Lot-2A: Balance civil works of HRT by TBM	M/s Gammon-CMS JV, Mumbai	455.63	<u>13.08.2013</u> 12.08.2017			
				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> 20.11.2017			
				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> 13.03.2007			
				Lot-4: Jiwa Nallah Works	M/s BJ_Techno-HAS (JV)	56.47	<u>11.09.2002</u> 10.09.2007			
			Contract terminated and Fresh awarded as under:							
			E&M works	Lot-4A: Balance Civil & HM works of Jiwa Nallah and associated works	M/s Coastal Projects, Noida	78.34	<u>22.06.2011</u> 21.04.2014			
				Generating Units, EOT Crane Main step up Transformers, Switch Yard and	M/s BHEL	354.44	<u>24.12.2002</u> 23.04.2007			
				Electrical & Mechanical Auxiliaries	M/s BHEL	34.2	<u>24.12.2002</u> 23.04.2007			
Design, Manufacture, Supply, Erection , Testing & commg.	M/s BHEL	391.11		<u>29.12.2006</u> 02/2011						
H&M works	Hydro-Mechanical Packages	M/s Om Metals-SPML (JV)		96.08	<u>26.07.07</u> 15.8.10					

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 (commence ment)/ Completion			
3	Tehri PSS, THDC, 18.7.06 Nov-11 (Revised CCEA) 4x250=1000 MW	<u>Uttara.</u> <u>khand</u> <u>NR</u>	EPC/ Turnk ey Contr act	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> 27.07.11 26.01.2016 (Commence ment <u>Date</u>)			
	In continuation..						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.</u> <u>khand</u> <u>NR</u>	Civil works	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.			
				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</u> <u>khand</u> <u>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</u> <u>khand</u> <u>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 Low Dam- IV NHPC 23.12.2003/30.09.20 05 4x40 = 160 MW Partially Commissioned Comm : 80 MW U/C : 80 MW	<u>W.B.</u> <u>ER</u>	Civil works	Construction of Diversion Arrangmt, Concrete Gravity Dam , PH, TRT	M/s HCC Ltd. , Mumbai	395.90 + US \$ 10.2 Million	10.05.2006 09/2009			
			E&M works	Supply, erection, testing & commissng of TG unit	M/s BHEL	247.57	10.05.2007 05/2010			
			H&M works	Supply, erection, testing & commissng of gates	M/s Om Metals -SPML JV	88.80	09.05.2007 08/2009			
8	Subansiri Lower NHPC 07.06.2001/09.09.03 8x250= 2000 MW	<u>Ar.Pr/</u> <u>Assam</u> <u>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			

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value (Rs. Crs.)	Date of Contract (commence ment)/ Completion
			E&M works	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
9	Kameng NEEPCO 12 2004/ 4x150 = 600	Ar. Pr. NER	Civil and H&M works	Package-I Bichom Dam & part of Bichom & Tenga tunne	M/s Patel – Unity JV, Mumbai	143.81	08.12.2004 08.02.2009
				Package-II Tenga Dam & part of Bichom & Tenga Tunnel & part of Tenga kimi tunnel		116.40	08.12.2004 08.02.2009
				Package-III P.H. civil works & part of Tenga kimi tunnel		131.65	08.12.2004 08.02.2009
				Package-IV Hydro-mechanical works & penstock lining.	M/s OMML & JSC-JV, New Delhi	236.14	17.12.2004 51 months
				Diversion Tunnel (Re-awarded)	M/s SEW Coastel-JV Hyderabad	39.44	07.01.2010 07/2010
			E&M works	Package-V Generating Units	M/s. BHEL, New Delhi.	241.11	03.12.2004 12/2009
10	Pare NEEPCO 24.9.2007/4.12.2008 2x55 = 110 MW	Ar. Pr. NER	Package-I Civil works	Package-I : Dam, Water Conductor system, Power House	M/s HCC Ltd. Mumbai	276.44	31.08.2009 30.08.2012
			Package-II H&M works	Package-II : Gates, Trash Rack, Penstocks and Steel liners	M/s Precision Infratech Ltd. Ahmedabad	47.50	03.12.2010 12/2012
			Package-III E&M works	Contract-1 : Design & Engineering, manufacture, Supply of Turbine Generator sets, Control Panels along with Aux. Contract-2 : Erection, Testing & Commissioning of TG sets, Control Panels along with Aux.	M/s Andritz Hydro Pvt. Ltd.	108.01 Cr.+ Euro 0.5090	01.10.2010 09/2013
					M/s Andritz Hydro Pvt. Ltd., India	11.12	01.10.2010 09/2013
			Package-IV (Switch Yard & Transf ormer	Supply of entire equipment of Switchyard & Transformer	M/s Areva T&D India Limited	20.92	26.09.2011 07/2013
				Erection, Testing & Commissioning of Switchyard & Transformer	M/s Areva T&D India Limited	3.23	26.09.2011 07/2013
11	Tuirial NEEPCO Revised CCEA 14.01.2011 2x30= 60 MW	Mizo ram NER	Civil works	Dam & Spillway	M/s Patel Engg. Ltd.	187.98	30.08.2002 14.01.2011 (Revised) 13.01.2014
				Power House, Switchyard and Power Water Way		32.75	31.12.2002 14.01.2011 (Revised) 13.01.2014

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value (Rs. Crs.)	Date of Contract (commence ment)/ Completion
			H&M works	Supply, Manufacture, Fabrication, Erection, Testing & Commissioning etc	M/s Sew-PES-Tuiri Consortium	36.43	22.09.2011 09/2013
			E&M works	Lot-V : First Contract: Manufacture, Supply of Power plant equipment, station and unit auxiliaries along with switchyard works. Second Contract: Erection, testing commissioning of Main plant and associated switchyard works.	M/s BHEL, New Delhi.	113.62 + 21.38 = 135.00 (Total)	25.10.2003 01.08.2011 (Revised) 14.01.2014
12	Ramam-III NTPC Ltd. 3x40= 120 MW	W.B. E.R.	Civil works & HM works	Approach road to right bank of barrage to access various project component, Barrage construction, Under ground desilting chamber with SFT and 5.1 km HRT	M/s. Simplex-Apex-JV	360.83	<u>10.09.14</u> 09/2019
			Civil works & HM works	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>
State Sector							
13	Polavaram (PPA) 21.07.10/ 25.02.09 12x80 = 960MW	Andhra Pradesh S.R.	Civil works & HM works	Investigation and L.P schedules etc., (Balance) and 1) Construction of Earth Dam Gaps-I & II, Earth-cum-Rock fill Dam for Gap-I & II , Spill channel, Approach channel and Pilot channel. 2) Construction of Spillway with concreting level+25.72m and its ancillary work and 3) Excavation of foundation of 960MW Hydro electric Power House, approach channel, Intake structure, Tail Race Pool , Tail Race Channel of ISPP on EPC Turnkey including O&M.	M/s. Trans stroy-JSCECUES (JV), Hyderabad	4054.00	<u>02.03.2013</u> <u>01.03.2018</u>
			E&M works	Work yet to be awarded.			
14	Shahpurkandi, Irrigation Deptt/PSPCL 04.05.2011 3x33+3x33+1x8= 206 MW	Punjab NR	Civil works & HM works	Main Dam alongwith Two head regulators	SOMA-BUREYA Joint Venture	687.51	<u>11.02.2013</u> Oct- 2016
			Civil works & HM works	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>

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value (Rs. Crs.)	Date of Contract (commence ment)/ Completion
15	Uhl-III, BVPC Ltd. 19.09.02 / ----- (TEC -2x50 MW) 3x33.3 =100	H.P. NR	Civil works	Neri Intake works & power channel	M/s SSJVPP Ltd. 12 th floor S.N.Tower 25/2 M.G.Road, Banglore 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, Banglore 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> <u>30.04.07</u> 15.10.2010
				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
16	Sawara Kuddu HP Power Corporation, 3x36.67=110	H.P. NR	Civil and H&M works	Package-I : Barrage, Power Intake, Desanding Arrangements and Gates & Hoisting Arrangements	M/s Patel Engineering Ltd.	283.49	<u>08.10.2009</u> 07.06.2012
				Package-II : Construction of HRT	M/s Aban Coastal JV	115.92	<u>17.07.2007</u> 16.07.2011
				Contract Terminated on 09.01.2014. Re-awarded on 03.11.2014 to M/s. HCC.			
				Package-III : Power House Complex, Surge Shaft, Pressure shaft, Machine Hall, Erection Bay, Transformer Cavern, Pot Head Yard, Cable Tunnel, MAT & other Tunnels and TRT	M/s Patel Engineering Ltd.	153.37	<u>04.03.2009</u> 03.06.2012
			E&M works	Package-IV: Generating Units with associated Auxiliaries, Generator Transformers, 245 KV GIS, XLPE Cable and other power equipment	M/s Andritz Hydro Pvt.Ltd.	180.54	<u>28.04.2009</u> 27.04.2012
18	Kashang-II & III H.P. Power Corpn. Ltd. 11.01 / 09.04.2009 1x65 + 1x65= 130 MW	H.P. NR	Civil and H&M works	River Diversion of Kerang Khand, Trench Weir, Connveyance Tunnel, De- sanding Basins, Connecting Tunnel, Kerang- Kashang Link Tunnel, Drop Structure, Underground Balancing Reservoir, HM works St.-II & St.-III	M/s Patel Engg. Ltd.	252.39	<u>12.11.2010</u> 11.11.2014
				E&M works	Included with Kashang Stage-I		
19	Sainj H.P. Power Corpn. Ltd. 29.12.2010/ 02.08.2010 2x50=100 MW	H.P. NR	Civil and H&M works	EPC Contract Package for Civil & HM works	M/s Hindustan Construction Co. Ltd.	431.00	<u>02.08.2010</u> 02.08.2014

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value (Rs. Crs.)	Date of Contract (commence ment)/ Completion
			E&M works	Generating Units, Generator Transformers, 245 KV GIS, XLPE Cable and other Power Plant equipment for power house complex, Pothead Yard area, Barrage area and BFV house area	M/s Voith Hydro, Pvt. Ltd.	EURO 3304219 + USD \$ 8319779 + 8,79,526,565 = 155.56 Crs.(Total Amt.)	<u>17.08.2011</u> 16.02.2015
20	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
21	Koyna Left Bank PSS WRD, Govt. of Mah. 20.02.2004 2x40 = 80 MW	Maha. WR	Civil and H&M works	Barrage, Intake tunnel, Twinlake tap, Ventilation tunnel, Power house, Intake structure, HRT, Pressure shaft, tail surge shaft, penstock, 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 & commng of TG unit and auxiliaries	M/s IVRCL Ltd. Pune Turbine- Litostroj Slovenia Generator- Koncar, Croatia	Euro 4.03 Crs + 177.99 Crs	<u>16.12.2010</u> 15.12.2014
22	Nagarujana Sagar TR APGENCO 01 05 (TEC Transfer)/--- 2x25=50 MW	A.P. SR	Civil Works	Excavation of foundation of dam and power house	M/s Rama Krishna Reddy, Hyderabad	13.38	<u>19.05.2005</u> 15.06.2006
				Spillway, power dam, intake, penstock ferrules	M/s Maytas-Shankara Narayan JV, Bangalore	86.60	<u>15.4.2006</u> 15.4.2008
				Power House	M/s SEW const. Ltd., Hyderabad	22.77	<u>26.09.2006</u> 25.03.2008
			E&M works	Design, manuf. testing & commissioning of TG unit and Auxl.	M/s BHEL	61.26	<u>03.05.2006</u> 02.09.2008
				Erection of E&M equipment	M/s Hypower Associates, Jabalpur		<u>19.03.2008</u>
			HM Works		M/s GTV-PES JV		<u>11.05.2009</u>
23	Lower Jurala TSGENCO, TEC in July 2007 6x40=240 MW Partially Commissioned Comm : 160 MW U/C : 80 MW	Telan gana SR	Civil works	.Excavation of approach channel, powerhouse pit, tail race channel	M/s M. Ramakrishna Reddy, Hyderabad	95.99	<u>10.02.2008</u> 09.02.2010
				Weir woks	M/s Patel-VARKS-JV, Hyderabad	79.10	<u>05.09.2008</u> 04.03.2011
			E&M works	Design, manufacture, testing & commng of TG unit and auxiliaries	M/s Alstom Projects, India	13.7m+238 cr (for supply) 0.007.7m + 43.45crs-erection	<u>09.06.2008</u> 08.01.2013
24	Punichintala TSGENCO, 4x30=120 MW	Telanga na SR	Civil & H&M Works	Construction of Power House, Tail Race, , gates etc.	M/s SCL-CR18G JV	56.59	<u>01.08.2007</u> 01.02.2011
			E&M works	Design, manuf., testing & supply of TG unit and auxiliaries	M/s BHEL	155	<u>25.05.2007</u> 24.01.2010

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 (commence ment)/ Completion
				Erection of E&M equipment	M/s Hypower Associates, Jabalpur Re-awarded to M/s Yantra Epcom Solutions Pvt. Ltd., Hyderabad	3.63 Crores.	<u>28.08.2009</u> 27.05.2011 (Contract terminated in August 2013) re-awarded 17.02.2014
25	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
26	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
27	New Umtru MePGCL 2x20=40MW	Meghal aya <u>NER</u>	Civil works		M/s ITD Cementation (India) Ltd.		<u>20.12.2007</u>
			E&M works	Design, manuf., testing & commissioning of TG unit and auxiliaries	M/s VATEch Hydro India Ltd.		<u>25.2.2009</u>
28	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		M/s. BHEL	125 Crs.	<u>26.03.2014</u>
29	Teesta Stage III Teesta Urja Ltd. 12.05.2006/ yet to be (FC) 6x200= 1200MW	<u>Sikkim</u> <u>ER</u>	Turn key execution award issued to the consortium of CKD-NEC-SEW-CGGC-ABIR-SABIR on 18.04.2007 with NEC (Navyug Engg. Co.) as lead partner.				
			E&M works	Generating units, and auxiliaries	M/s Andritz Hydro ,India	1100.12	<u>18.10.2007</u> 17.012012
Private Sector							
30	Ratle GVK Ratle HEP Pvt. Ltd. (GRHEPPL) 19-12-2012 4x205+1x30= 850 MW	<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	<u>23.03.2013</u>
31	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>
32	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

Sl. No.	Project name/ Exec. Agency CEA clearance/ Approval Capacity (MW)	State Region	Contract	Scope of works & brief details	Contracting Agency (Name & Location)	Contract value (Rs. Crs.)	Date of Contract (commence ment)/ Completion
				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
33	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
34	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		
35	Chanju-I M/s IA Energy 24.04.2010 3x12 = 36 MW	<u>HP</u> <u>NR</u>	Civil works	Excavation of Barrage, River Diversion, Desilting arrangement, HRT (Package – I & II) & complete water conductor system	M/s Ashok Chauhan & Co., Shimla		<u>13.09.201</u>
				Excavation of Power House & Switchyard	M/s S.K.K. Mahajan Enterprise, Tissa, Distt. Chamba		<u>23.07.2011</u>
				Concreting/Lining works of River Diversion, Barrage & Power intake, desilting arrangement, HRT Package-I	M/s Him Hydro Joint Venture, Palampur, Distt. Kangra		<u>14.09.2011</u>
				Concrete lining of HRT Package-II	M/s Tuscon Engineers Pvt. Ltd., Kolkatta		<u>14.09.2011</u>
				Civil works of Power House, Switchyard & Valve House	M/s Him Hydro Joint Venture, Palampur, Distt. Kangra		<u>30.07.2011</u>
			H&M works	Design, Engineering, Manufacture, Farication & Erection of all hydro-mechanical gates & equipment	M/s ATB RIVA CALZONI India Pvt. Ltd., New Delhi		<u>06.08.2012</u>
			E&M works	Manufacturing., Supply, erection & commng. of TG units	B Fouress Pvt. Ltd., Banglore		<u>21.09.2011</u>
36	Phata Byung M/s Lanco 06.10.2008 2x38 MW = 76 MW	<u>Uttarak</u> <u>hand</u> <u>NR</u>	Civil works	Dam, water conductor System, power House	Lanco Infratech Ltd.	206	<u>12.04.2008</u> 07/2012
			H&M works	Design, Engineering, Manufacture, Farication & Erectio,n 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
37	Singoli Bhatwari M/s L&T 11.07.2008 3x33 MW = 99 MW		Civil works	P-1 (Project Roads & Bridges)	M/s L&T DPBU	34.2214	<u>2.5.2008</u> ---
				P-2 (Dam/Barrage, Tunnels)		381.7573	<u>6.10.2008</u> ---
				P-39Power House, Tail Race Tunnel &Associated works)		87.7931	<u>20.6.2008</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 (commence ment)/ Completion	
			H&M works	Supply, fabrication, Manufacturing, commissioning of Gates and Hoists	M/s General Mechanical Works Private Limited	25.45	<u>4.12.2011</u> 12/2014	
				Supply, fabrication, Manufacturing, commissioning of Steel Liners	NA			
			E&M works	Generating units and auxiliaries	M/s Voith Hydro, India	EURO 1813069 + \$ 3006954 + 963332930 + 122570000	<u>15.06.2011</u>	
38	Maheshwar, SMHPCL 12 96/ 29.9.2006 (FC) 10x40= 400MW	<u>M. P.</u> <u>WR</u>	Civil and HM works	All civil works like dam, Power Dam, HRC, Penstock PH etc.	M/s SEW Construction – Prasad and Company Ltd.	275.0 Crs. 22.02.97	<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	
39	Teesta-VI M/s Lanco Energy Pvt. Ltd. 27.12.2006/ 07/2007(FC) 4x125= 500MW	<u>Sikkim</u> <u>NER</u>	Civil works	Dam, Tunnel , Power House, Surge-Shaft, Intake	EPC contract To M/s Lanco Infratech Ltd.	2260.00	<u>03/2007</u>	
			H&M works	Design Engineering Fabrication & Erection of Gates				10/2011
			E&M works	Main Plant Generating units, and auxiliaries			M/s Alstom Projects, India	568.00
40	Rangit-IV Jal Power Corp. Ltd. 06.07.2007/23.10.2007(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, Switchyad & 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, auxillaries 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-II (Balance of Plant)	M/s Siemens Ltd.	53.9	<u>14.04.2011</u> 04/2013	
41	Bhasmey Gati Infrastructure 2x25.5 = 51 MW	<u>Sikkim</u> <u>NER</u>	Civil works	Dam, Tunnels , Power House, Surge Shaft, Pressure Shaft, Intake	M/s Simplex Infrastructure Ltd.	160	<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	
42	Tashiding M/s Shiga Energy Private Ltd. 2x48.5 = 97 MW	<u>Sikkim</u> <u>NER</u>	Civil and H&M works	Dam, Tunnel , Power House, Surge Shaft, Pressure Shaft, Intake, Design Engineering Farication & Erection of Gates etc.	M/s Bumi Geo Engineering Limited	300	<u>28.03.2011</u> 09/2013	
			E&M works	Manufacturing., Supply, erection & commissioning of TG Units.	M/s Alstom Projects, India	107.99	<u>21.05.2010</u> 11/2012	

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 (commence ment)/ Completion
43	Dikchu Sneha Kinetic Power Projects Pvt. Ltd. 21.10.2011 3x32= 96 MW	Sikkim NER	Civil works	Dam, Tunnel , Power House, Surge Shaft, Pressure Shaft, Intake	M/s Haridwar Infrastructure Private Limited	498	<u>22.03.2011</u> 03/2014
			H&M works	Design Engineering Fabrication & Erection of Gates			
			E&M works	Manufacturing, Supply, erection & commissioning of TG units	Alstom Projects, India	<u>07/2011</u>	
44	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.		
45	Rongnichu Madhya Bharat Power Corporation Ltd. 2x48= 96 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
46	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		
47	Gongri Dirang Energy Pvt. Ltd. 04.02.2013 2x72= 144 MW	Ar. Pradesh NER	EPC Ctrt.	Planning, Engineering, Design and Construction of Civil, HM, E&M & Infrastructure works.	Patel Engineering Ltd, Mumbai	989.589	<u>22.12.2011</u> 19.11.2017
			E&M works	Manufacturing., Supply, erection & commng. of TG units	M/s Andritz Hydro Pvt. Ltd.		

CHAPTER - 10

Status of financial closure of Under Execution Private Sector H. E. Projects for likely benefits during 12th Plan & beyond

Sl. No.	Name of Project, State, Capacity, Date of TEC	Implementing Agency	Financial Closure Status	Remarks/ Constraints
Under Execution				
1.	Sorang HP 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 Hydrel Power Corporation Ltd.	Financial closure achieved on 29.9.2006.	
3.	Teesta-III Sikkim 6x200 MW 12.05.2006	M/s Teesta Urja Ltd. (A Govt. of Sikkim Enterprise since 6-8-15)	Financial closure achieved on 14.08.07.	
4.	Teesta-VI Sikkim 4x125 MW 27.12.2006	M/s Lanco Energy Pvt. Ltd.	Financial closure achieved in July, 07.	
5.	Rangit-IV Sikkim 3x40 MW 06.07.2007	M/s Jal Power corporation Ltd.	Financial closure achieved on 25.01.2010.	
6.	Tidong-I H.P. 100 MW 23.07.2007	M/s Nuziveedu Seeds	Financial closure achieved on 25.03.2010.	
7.	Tangu Romai H.P. 2x22 MW 30.11.2007	Tangu Romai Power Gen. Pvt. Ltd.	Financial closure achieved on 22.01.2010.	
8.	Phata Byung Uttarakhand 2x38 MW 06.10.2008	M/s Lanco	Financial closure achieved on 25.07.2009.	
9.	Singoli Bhatwari Uttarakhand 3x33 MW 11.07.2008	M/s L&T	Financial closure achieved on 9.5.2011.	
10.	Bhasmey Sikkim 2x25.5= 51 MW Dec, 2008	M/s Gati Infrastructure	Financial closure achieved on 25.03.2010	
11.	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).	
12.	Tashiding Sikkim 2x48.5= 97 MW 28.03.2011	M/s Bumi GEO Engg. Pvt.Ltd.	Financial closure achieved in July, 2011.	
13.	Dikchu Sikkim 3x32= 96 MW 21.10.2011	M/s Sneha Kinetic Power Projects Pvt. Ltd.	Financial closure achieved on 10.10.2011.	
14.	Rongnichu Sikkim 2x48= 96 01.10.2008	M/s Madhya Bharat Power Corporation Ltd.	Financial closure achieved. Loan agreement signed on 21.03.2011	

Sl. No.	Name of Project, State, Capacity, Date of TEC	Implementing Agency	Financial Closure Status	Remarks/ Constraints
15.	Bajoli Holi Himachal Pradesh 3x60= 180 MW 30.12.2011	M/s GMR Bajoli Holi Hydro Power Pvt. Ltd.	Financial closure achieved. Loan agreement signed with IDBI Bank.	
16.	Ratle J&K 4x205+1x30= 850 MW	M/s GVK Ratle HEP Pvt. Ltd. (GRHEPPL)	Financial closure achieved.	
17.	Chanju-I Himachal Pradesh 3x12= 36 MW 24.04.2010	M/s IA Energy	Financial closure achieved on 17.07.2012.	
18.	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).	
19.	Gongri Ar. Pradesh 2x72= 144 MW 04.02.13	M/s Dirang Energy Private Limited	Financial closure achieved on 15.02.2013.	
20.	Works Awarded but yet to start			
	Demwe Lower Ar. Pradesh 5x342 + 1x40 MW 20.11.2009	M/s Athena Demwe Power Pvt. Ltd.	Financial closure awaited.	

CHAPTER- 11
DETAILS OF UNDER CONSTRUCTION HYDRO ELECTRIC PROJECTS (ABOVE 25 MW)
HAVING TIME/COST OVERRUN

Sl. No	Project Name/(I.C.)/ Executing Agency	State	Unit No.	Cap. (MW)	Org. Comm. Sched.	Rev. Comm. Sched.	Ant. Comm. Sched.	Time over run (months)	Org. Cost (Rs. in Crores)	Rev. Cost (Rs. in Crores)	Ant. Cost (Rs. in Crores)	Cost over run (Rs. in Crores)	Reasons for time and cost over run
1	2	3	4	5	6		7	8	9		10	11	12
CENTRAL SECTOR													
1	Tapovan Vishnughad (4x130 = 520 MW) NTPC	Uttara khand	1 2 3 4	130 130 130 130	2012-13 2012-13 2012-13 2012-13 (Mar'13)	2015-16 2015-16 2015-16 2015-16 (Mar'16)	2019-20 2019-20 2019-20 2019-20 (June'19)	84	2978.48 (11/06)	3846.30 (01/14)	3846.30 (01/14)	867.82	<ul style="list-style-type: none"> ➤ Heavy water ingress due to bad geology in HRT and rock fall on TBM. TBM struck up thrice. ➤ Flash flood in June, 2013 & Aug'12 damaging coffer dam. ➤ Termination of civil contracts for Barrage and HRT.
2	Lata Tapovan (3x57 = 171 MW) NTPC	Uttara khand	1 2 3	57 57 57	2017-18 2017-18 2017-18 (Aug'17)		2021-22 2021-22 2021-22 (subject to re-start of works)	48	1527.00		1527.00 (Under revision)	Nil	<ul style="list-style-type: none"> ➤ Flash flood during June, 2013 in Uttarakhand. ➤ Local issues / non-start of works in Barrage area ➤ Hon'ble Supreme court ban on construction works since May-14..
3	Pare (2x55 = 110 MW) NEEPCO	Arunachal Pradesh	1 2	55 55	2012-13 (Aug'12)		2016-17 2016-17 (Dec'16)	48	573.99 (06/07)		1581.04	1007.05	<ul style="list-style-type: none"> ➤ Law & Order problem. ➤ Poor geology. ➤ Poor approach roads. ➤ Flash flood during Jun-Sep -2015. Dam area inundated with water, Concreting of Dam effected for 04 months.
4	Tuirial (2x30 = 60 MW) NEEPCO	Mizoram	1 2	30 30	2006-07 2006-07 (July'06) (Jan'14) RCE-I	2013-14 2013-14 (Jan'14) RCE-I	2017-18 2017-18 (Oct'17)	132	368.72	913.63 (June'10)	1441.52	1072.80	<ul style="list-style-type: none"> ➤ Works suspended earlier due to local agitation for about 7 yrs. (June-2004 to Jan-2011). As a result Revised approval (RCE-I) accorded in Jan. 2011. ➤ Poor approach roads. ➤ Slope failure in Power House. ➤ Inadequate mobilization by contractor. ➤ Late mobilization of erection contractor for E&M works.
5	Kameng (4x150 = 600 MW) NEEPCO	Arunachal Pradesh	1 2 3 4	150 150 150 150	2009-10 2009-10 2009-10 2009-10 (Dec'09)		2016-17 2016-17 2016-17 2016-17 (Critical) (Mar'17)	87	2496.90 (03/04)		6179.96	3588.94	<ul style="list-style-type: none"> ➤ Change in dam parameters. ➤ Slow progress in dam & HRT due to bad geology, heavy seepage, inadequate machinery. ➤ Flash flood in Oct. 2008 and Sept. 2012. ➤ Ingress of water in HRT. ➤ Poor approach roads. ➤ Contractual issues. ➤ Shortage of aggregate. ➤ Clearance for quarry from State Govt.
6	Tehri PSS (4x250 = 1000 MW) THDC	Uttara khand	1 2 3 4	250 250 250 250	2010-11 2010-11 2010-11 2010-11 (July'10)	2015-16 2015-16 2015-16 2015-16 (Feb'16) RCE-I	2019-20 2019-20 2019-20 2019-20 (Sept'19)	108	1657.60	2978.86 (Nov,11)	2978.86	1321.26	<ul style="list-style-type: none"> ➤ Approval of RCE as L-1 price bid was more than cost estimate. RCE approved in Nov-2011. ➤ Litigation by bidders. ➤ Poor geology. ➤ Local agitation at Asena Quarry. ➤ Agitation at muck disposal area.

Sl. No	Project Name/(I.C.)/ Executing Agency	State	Unit No.	Cap. (MW)	Org. Comm. Sched.	Rev. Comm. Sched.	Ant. Comm. Sched.	Time over run (months)	Org. Cost (Rs. in Crores)	Rev. Cost (Rs. in Crores)	Ant. Cost (Rs. in Crores)	Cost over run (Rs. in Crores)	Reasons for time and cost over run
1	2	3	4	5	6		7	8	9		10	11	12
													<ul style="list-style-type: none"> ➤ Poor preparedness of contractor. ➤ Revision of Lay out of machine hall due to poor geology.
7	Teesta Low Dam– IV (4x40 = 160 MW) NHPC	West Bengal	1 2 3 4	40 40 40 40	2009-10 2009-10 2009-10 2009-10 (Sept'09)		2015-16 2015-16 2016-17 2016-17 (Sept'16)	<ul style="list-style-type: none"> ➤ Comm. ➤ Comm. 84	1061.38 (03/05)		2336.74 (12/15)	1275.36	<ul style="list-style-type: none"> ➤ Delay in forest clearance. ➤ Flash flood in July, 2007, May, 2009 & July, 2010. ➤ Gorkha Jan Mukti agitations/bandhs. ➤ Cash crunch of Civil contractor (M/s HCC), the civil works were at halt from March, 2013 to November, 2014.
8	Parbati - II (4x200 = 800 MW) NHPC	Himachal Pradesh	1 2 3 4	200 200 200 200	2009-10 2009-10 2009-10 2009-10 (Sept'09)		2018-19 2018-19 2018-19 2018-19 (Dec'08)	108	3919.59 (12/01)		8398.75 (03/15)	4479.16	<ul style="list-style-type: none"> ➤ Hon'ble High Court of Himachal Pradesh ban on stone crusher operation. ➤ Delay in revised forest clearance. ➤ TBM suffered extensive damage due to heavy ingress of water and slush in TBM face in Nov, 2006. ➤ Slide in Power House area in Apr-04, Jun-06 and Feb-07. ➤ Flash flood in 2004,2005,2010 and 2011. ➤ Jiwa Nallah works affected due to cavity treatment. ➤ Contractual issues.
9	Subansiri Lower (8x250 = 2000 MW) NHPC	Arunachal Pradesh/ Assam	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		2020-21 (subject to re-start of works)	120	6285.33 (12/02)		17435.15 (02/16)	11149.82	<ul style="list-style-type: none"> ➤ Delay in transfer of forest land. ➤ Disruption of works by locals in Ar. Pradesh side. ➤ Slope failure in Power House in Jan, 2008. ➤ Damage to bridge on Ranganadi river. ➤ Change in design of surge shafts to surge tunnels. ➤ Stoppage of works due to agitation launched by Anti Dam activists in Assam against construction of Project. Work stopped since 16.12.2011. ➤ Issue of D/s impact studies. ➤ Case in NGT.
10	Kishanganga (3x110 = 330 MW) NHPC	Jammu & Kashmir	1 2 3	110 110 110	2014-15 2014-15 2014-15 (July'14) (Jan'16) RCE-I	2015-16 2015-16 2015-16 (Jan'16) RCE-I	2016-17 2016-17 2016-17 (Critical) (Nov'16)	28	2238.67 (11/05)	3642.04 (09/07)	5783.17 (09/15)	3544.50	<ul style="list-style-type: none"> ➤ Approval of RCE as L-1 price bid was more than cost estimate. RCE approved in Jan.-2009. ➤ Heavy Rainfall in March, 2011. ➤ Cavity in HRT – TBM portion. ➤ Poor geology in Access tunnel. ➤ Dam works affected due to arbitration proceedings at International Court of Arbitration. ➤ Local people demanding Employment in NHPC. ➤ R&R Issues. ➤ Completion of power evacuation arrangement (PGCIL)
11	Vishnugad Pipalkoti (4x111 = 444 MW) THDC	Uttara khand	1 2 3 4	111 111 111 111	2013-14 2013-14 2013-14 2013-14 (Jun'13)		2019-20 2019-20 2019-20 2019-20 (Dec'19)	72	2491.58 (03/08)		2491.58 (03/08)	Nil	<ul style="list-style-type: none"> ➤ 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.

Sl. No	Project Name/(I.C.)/ Executing Agency	State	Unit No.	Cap. (MW)	Org. Comm. Sched.	Rev. Comm. Sched.	Ant. Comm. Sched.	Time over run (months)	Org. Cost (Rs. in Crores)	Rev. Cost (Rs. in Crores)	Ant. Cost (Rs. in Crores)	Cost over run (Rs. in Crores)	Reasons for time and cost over run
1	2	3	4	5	6		7	8	9		10	11	12
	STATE SECTOR												
12	Kashang-II & III (1x65 + 1x65 MW) =130 MW HPPCL	Himachal Pradesh	1 2	65 65	2013-14 2013-14		2019-20 2019-20 (subject to re-start of works)	72	601.78 (03/08)		601.78 (03/08)	Nil	<ul style="list-style-type: none"> ➤ Local issues. Works could not be started due to continuous agitation by Lipa villagers. Matter is sub-judice. ➤ Flash flood in June, 2013. ➤ Works stopped by contractor. ➤ Works stuck by NGT.
13	Uhl-III (3x33.33 = 100 MW) BVPCL (HPSEB)	Himachal Pradesh	1 2 3	33.33 33.33 33.33	2006-07 2006-07 2006-07		2017-18 2017-18 2017-18	132	431.56 (09/02)		940.84 (03/08)	509.28	<ul style="list-style-type: none"> ➤ Delay in transfer of forest land. ➤ Delay in acquisition of private land ➤ Delay in transfer of quarry sites. ➤ Delay in award of works. ➤ 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.
14	Sawra Kuddu (3x37 =111MW) HPPCL,	Himachal Pradesh	1 2 3	37 37 37	2010-11 2010-11 2010-11		2018-19 2018-19 2018-19	96	558.53 (03/03)		1181.90 (03/12)	623.37	<ul style="list-style-type: none"> ➤ Delay in MOEF clearance. ➤ Delay in award of Civil & E&M works. ➤ Poor geology in HRT. ➤ Slow progress of HRT Lining. ➤ Contractual issues ➤ Contract for HRT package terminated on 9.1.14. Re-awarded in Nov,2014 to M/s. HCC.
15	Sainj (2x50 = 100 MW) HPPCL	Himachal Pradesh	1 2	50 50	2014-15 2014-15		2016-17 2016-17	24	784.56		784.56	Nil	<ul style="list-style-type: none"> ➤ Slow progress of HRT and Barrage works ➤ Local issues
16	Shongtom Karcham (3x150 = 450 MW) HPPCL 16.08.2012	Himachal Pradesh	1 2 3	150 150 150	2017-18 2017-18 2017-18		2019-20 2019-20 2019-20	24	2807.83		3316.35	508.52	<ul style="list-style-type: none"> ➤ Shifting of Army Ammunition Depot. ➤ Local Issues.
17	Lower Jurala (6x40 = 240 MW) TGenco	Telangana	1 2 3 4 5 6	40 40 40 40 40 40	2011-13 2011-13 2011-13 2011-13 2011-13 2011-13		2015-16 2015-16 2015-16 2015-16 2016-17 2016-17	48	908.34 (05/07)		1969.14	566.49	<ul style="list-style-type: none"> ➤ Delay in award of E&M works. ➤ Slow progress in civil works. Land acquisition problem. ➤ Unprecedented flood in 2009, 2010, 2012 & 2013. ➤ Frequent bandh by TJAC for Telangana State. ➤ Agitation by local villagers. ➤ Right flank Dam concreting was stopped by the villagers from 23.04.2011 to 30.11.2012. ➤ Slow progress of HM works. ➤ Unit-1 & 2 could not be commissioned in 2013-14 due to less availability of water. ➤ Submergence of Power House on 30.07.2014 due to release of flood water from Priyadarshni Jurala. ➤ Non-availability of water.
18	Pulichintala (4x30 = 120 MW)	Telangana	1 2	30 30	2009-11 2009-11		2016-17 2016-17	72	380.00 (2006-07)		563.49	183.49	<ul style="list-style-type: none"> ➤ Delay in award of E&M works. ➤ Unprecedented floods in Oct.2009 & Sept.2011.

Sl. No	Project Name/(I.C.)/ Executing Agency	State	Unit No.	Cap. (MW)	Org. Comm. Sched.	Rev. Comm. Sched.	Ant. Comm. Sched.	Time over run (months)	Org. Cost (Rs. in Crores)	Rev. Cost (Rs. in Crores)	Ant. Cost (Rs. in Crores)	Cost over run (Rs. in Crores)	Reasons for time and cost over run
1	2	3	4	5	6		7	8	9		10	11	12
	TGENCO		3 4	30 30	2009-11 2009-11		2017-18 2017-18	84					<ul style="list-style-type: none"> ➤ Contractual issues. ➤ Slow progress of Power House works.
19	Nagarjuna Sagar Tail Pool Dam (2x25 = 50 MW) APGENCO	Andhra Pradesh	1 2	25 25	2008-09 2008-09		2016-17 2016-17	96	464.63 (2002-03)		958.67	494.04	<ul style="list-style-type: none"> ➤ Slow progress of dam due to frequent flooding during 2009, 2011 & 2013. ➤ Delay in award of HM works. ➤ Contractual issues in Dam works. ➤ Non-availability of water.
20	Pallivasal 2x30 = 60 MW KSEB	Kerala	1 2	30 30	2010-11 2010-11		2019-20 2019-20 (subject to re-start of works)	108	222.00 (2004)		284.69 (2007)	62.69	<ul style="list-style-type: none"> ➤ Slow progress of civil works. ➤ Delay in land acquisition. ➤ Change in alignment of Adit to HRT. ➤ Poor geology strata in HRT. ➤ Heavy Monsoon ➤ Works stopped by contractor since 28.1.15 due to contractual issues.
21	Thottiyar (1x30+1x10)= 40MW KSEB	Kerala	1 2	30 10	2012-13 2012-13		2019-20 2019-20 (subject to re-start of works)	84	136.79 (2007)		150.02	13.23	<ul style="list-style-type: none"> ➤ 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. ➤ Contractual issues. ➤ Financial crunch with contractor.
22	New Umtru (2x20 =40 MW) MePGCL	Meghalaya	1 2	20 20	2011-12 2011-12		2016-17 2016-17	60	226.40		599.00	372.60	<ul style="list-style-type: none"> ➤ Delay in award of works. ➤ Slow progress of civil works.
23	Shahpurkandi 3x33+3x33+1x8 =206 MW, Irrigation Deptt. & PSPCL	Punjab	1 2 3 4 5 6 7	33 33 33 33 33 33 8	2017-18		2019-20 (subject to re-start of works)	24	2285.81		2285.81	Nil	<ul style="list-style-type: none"> ➤ 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.
24	Koyna Left Bank PSS 2x40 = 80 MW WRD, Mah.	Maharashtra	1 2	40 40	2017-18 2017-18		2019-20 2019-20 (subject to active start of works)	24	226.40		379.78	153.38	<ul style="list-style-type: none"> ➤ Slow progress of works. ➤ Fund constraints due to increase in project cost. RCE under approval.
25	Teesta Stage III (6x200 = 1200 MW) Teesta Urja Limited	Sikkim	1 2 3 4 5 6	200 200 200 200 200 200	2011-12 2011-12 2011-12 2011-12 2011-12 2011-12		2016-17 2016-17 2016-17 2016-17 2016-17 2016-17	60	5705.55		11382.00	5676.45	<ul style="list-style-type: none"> ➤ Delay in forest clearance. ➤ Works suffered due to earthquake in Sept.2011. ➤ Financial constraints with developer ➤ Delay in Pressure shaft works. ➤ Delay in Power Evacuation arrangement. ➤ Works stuck up for 13-months due to cash flow problem with

Sl. No	Project Name/(I.C.)/ Executing Agency	State	Unit No.	Cap. (MW)	Org. Comm. Sched.	Rev. Comm. Sched.	Ant. Comm. Sched.	Time over run (months)	Org. Cost (Rs. in Crores)	Rev. Cost (Rs. in Crores)	Ant. Cost (Rs. in Crores)	Cost over run (Rs. in Crores)	Reasons for time and cost over run
1	2	3	4	5	6		7	8	9		10	11	12
													developer.
26	Vyasi (2x60=120 MW) UJVNL	Uttarakhand	1 2	60 60	2014-15 2014-15		2018-19 2018-19	48	936.23		936.23	Nil	➤ Delay in award of works
27	Polavaram (12x80 = 960 MW) PPA	Andhra Pradesh	1 to 8	80 each	2017-18		2021-22	48	16010.45		16010.45	Nil	➤ Slow progress of works ➤ Funds constraints ➤ E&M works yet to be awarded
PRIVATE SECTOR													
28	Tidong-I (2x50 =100 MW) NSL Tidong	Himachal Pradesh	1 2	50 50	2013-14 2013-14		2017-18 2017-18	48	543.15 (08/05)		543.15 (08/05)	Nil	➤ Delay in NOC by Projects affected Panchayats, suspension of works by Govt.for one year.
29	Tangnu Romai-I (2x22 = 44 MW) TRPGPL	Himachal Pradesh	1 2	22 22	2014-15 2014-15		2018-19 2018-19 (subject to re-start of works)	48	255.00 (2006)		255.0 (2006)	Nil	➤ Slow progress of civil works. ➤ Poor geology. ➤ Difficult area. ➤ Weather conditions & accessibility. ➤ Financial constraints with the developer.
30	Sorang (2x50 = 100 MW), HSPPL	Himachal Pradesh	1 2	50 50	2012-13 2012-13		2017-18 2017-18	60	586.00 (2006)		586.00 (2006)	Nil	➤ Poor geology. ➤ Difficult area. ➤ Weather conditions & accessibility. ➤ Penstock cracks / leakage during filling of Water conductor System. ➤ Rupture in surface penstock in Nov-15 during trial run.
31	Singoli Bhatwari (3x33 = 99 MW) L&T	Uttarakhand	1 2 3	33 33 33	2014-15 2014-15 2014-15		2020-21 2020-21 2020-21 (subject to active start of works)	72	666.47 (2008)		666.47 (2008)	Nil	➤ Poor geology in HRT. ➤ Agitation by local people. ➤ Flash flood in June,2013.
32	Phata Byung (2x38 = 76 MW), LANCO	Uttarakhand	1 2	38 38	2013-14 2013-14		2017-18 2017-18 (subject to active start of works)	48	520.00		520.00	Nil	➤ Flash flood in June,2013. ➤ Poor geology in HRT.

Sl. No	Project Name/(I.C.)/ Executing Agency	State	Unit No.	Cap. (MW)	Org. Comm. Sched.	Rev. Comm. Sched.	Ant. Comm. Sched.	Time over run (months)	Org. Cost (Rs. in Crores)	Rev. Cost (Rs. in Crores)	Ant. Cost (Rs. in Crores)	Cost over run (Rs. in Crores)	Reasons for time and cost over run
1	2	3	4	5	6		7	8	9		10	11	12
33	Maheshwar (10x40 = 400 MW) SMHPCL	Madhya Pradesh	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		2017-18 (subject to re-start of works)	192	1569.27 (96-97)		6793.00	5223.73	<ul style="list-style-type: none"> ➤ R&R issues ➤ Cash flow problem with developer
34	Teesta Stage VI (4x125 = 500 MW) Lanco Energy Private Limited	Sikkim	1 2 3 4	125 125 125 125	2012-13 2012-13 2012-13 2012-13		2021-22 2021-22 2021-22 2021-22 (subject to re-start of works)	108	3283.08		5400.00	2116.92	<ul style="list-style-type: none"> ➤ Poor geology. ➤ Land acquisition. ➤ Contractual issues ➤ Funds constraints with developer
35	Rangit-IV HE Project (3X40 = 120 MW) JPCL	Sikkim	1 2 3	40 40 40	2012-13 2012-13 2012-13		2018-19 2018-19 2018-19 (subject to re-start of works)	72	726.17		1600.37	874.20	<ul style="list-style-type: none"> ➤ Slow progress of HRT & Surge Shaft works due to poor geology. ➤ Works hampered due to earthquake in September, 2011. ➤ Financial constraints with developer
36	Bhasmey (2x25.5 =51 MW) Gati Infrastructure	Sikkim	1 2	25.5 25.5	2012-13 2012-13		2019-20 2019-20	84	408.50		408.50	Nil	<ul style="list-style-type: none"> ➤ Forest clearance ➤ Financial constraints with developer
37	Rongnichu (2x48 =96 MW) Madhya Bharat Pvt. Co.Ltd.	Sikkim	1 2	48 48	2015-16 2015-16		2019-20 2019-20	48	491.32		491.32	Nil	<ul style="list-style-type: none"> ➤ Land Acquisition ➤ Poor geology.
38	Ratle (4x205+1x30) = 850 MW Ratle HEP Pvt .Ltd.	J&K	1 2 3 4 5	205 205 205 205 30	2017-18 2017-18 2017-18 2017-18 2017-18		2021-22 2021-22 2021-22 2021-22 2021-22 (subject to re-start of works)	48	5517.02		5517.02	Nil	<ul style="list-style-type: none"> ➤ Slow progress of works. ➤ Works suspended since 11.7.14 due to frequent local disturbance.
39	Gongri 2x72= 144 MW	Ar. Pradesh	1 2	72 72	2017-18 2017-18		2019-20 2019-20	24	1436.27		1436.27	Nil	<ul style="list-style-type: none"> ➤ Works awarded on 22.11.2011. However, consent to establish from State Pollution Control Board was issued on 19-5-14.

Sl. No	Project Name/(I.C.)/ Executing Agency	State	Unit No.	Cap. (MW)	Org. Comm. Sched.	Rev. Comm. Sched.	Ant. Comm. Sched.	Time over run (months)	Org. Cost (Rs. in Crores)	Rev. Cost (Rs. in Crores)	Ant. Cost (Rs. in Crores)	Cost over run (Rs. in Crores)	Reasons for time and cost over run
1	2	3	4	5	6		7	8	9		10	11	12
	Dirang Energy (P)Ltd						(subject to re-start of works)						➤ Financial constraints with the developer.
40	Bajoli Holi 3x60= 180 MW M/s GMR Bajoli Holi	H.P.	1 2 3	60 60 60	2017-18		2019-20	24	1696.93		1696.93	Nil	➤ Slow progress of works.
41	Rangit-II 2x33= 66 MW Sikkim Hydro Power Ltd.	Sikkim	1 2	33 33	2017-18		2019-20 (subject to re-start of works)	24	498.00		498.00	Nil	➤ Slow progress of works. ➤ Financial constraints with the developer.
42	Panan 4x75= 300 MW Himagiri Hydro Energy Pvt. Ltd.	Sikkim	1 2 3 4	75 75 75 75	2018-19		2020-21 (subject to active start of works)	24	1 833.05		1833.05	Nil	➤ Clearance from NWLB received in December, 2015. ➤ Clearance from NGT.
43	Tashiding 2x48.5=97 MW Shiga Energy Pvt Ltd.	Sikkim	1 2	48.5 48.5	2015-16		2016-17	12	465.95		465.95	Nil	➤ Poor geology ➤ Local issues
44	Chanju-I 3x12=36 IA Energy	HP	1 2 3	12 12 12	2014-15		2016-17	24	295.09		295.09	Nil	➤ Slow progress of works ➤ Poor geology