

A photograph of a large concrete dam with multiple spillways, with water cascading over them. The dam is set against a backdrop of green, hilly terrain under a blue sky with light clouds.

Hydro Development Plan for 12th Five Year Plan (2012-2017)



**Central Electricity Authority
Hydro Planning & Investigation Division**

September 2008
New Delhi

HYDRO DEVELOPMENT PLAN
FOR
12TH FIVE YEAR PLAN
(2012-2017)

Central Electricity Authority
HYDRO PLANNING & INVESTIGATION DIVISION
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EXECUTIVE SUMMARY

Development of hydro power resources is important for energy security of the country. It takes about 10 years for developing a large size hydro project from planning to commissioning. The construction period of a large hydro project after placement of Letter of Award for the main packages could span 5 years or more. It is therefore necessary to prepare a long term plan of hydropower development covering at least 10 years period. Central Electricity Authority (CEA) has, therefore, prepared “Hydro Development Plan for 12th Plan (2012-07)” covering planning of hydro power projects during 11th & 12th Plan period.

As per the programme approved by the Planning Commission, during the 11th Plan period a capacity addition of 78,700 MW comprising 59,693 MW thermal, 15,627 MW hydro and 3,380 MW nuclear projects has been proposed. Out of 15,627 MW from hydro projects, 8,654 MW has been proposed in Central Sector, 3,482 MW in State Sector and 3,491 MW in Private Sector.

Out of 15,627 MW from hydro electric projects, following projects with aggregate installed capacity of 4750 MW, expected to be commissioned during the terminal year of the 11th Plan (2011-12), are critical for commissioning during the 11th Plan:

Sl. No.	Project Name	Executing Agency	Installed Capacity (MW)
i)	Parvati Stage-II, H.P.	NHPC	800
ii)	Loharinagpala, Uttarakhand	NTPC	600
iii)	Tapovan Vishnugad, Uttarakhand	NTPC	520
iv)	Subansiri Lower, Ar. Pradesh	NHPC	2000
v)	Kameng, Ar. Pradesh	NEEPCO	600
vi)	Sawara Kudu, H. P.	PVC	110
vii)	Lower Jurala, A. P.	APGENCO	120
	Total		4750

Strategy for 12th Plan

To meet the all India peak demand and energy requirement at the end of 12th Plan, a capacity addition of more than 90,000 MW has been assessed during 12th Plan (2012-2017), which includes 30,000 MW of hydro electric power. To achieve the ambitious programme of hydro capacity addition in the 12th Plan period, shelf of hydro power projects with aggregate installed capacity of 58,573 MW were identified by CEA in the year 2006-07. The status of preparation of DPR of the shelf of projects is being monitored by CEA on regular basis.

Advance action on the identified hydro electric schemes need to be taken in the early part of 11th Plan period itself as long period is required for development of DPRs, obtaining various clearances like Environment & Forest clearances and CEA clearance, investment decision and achieving financial closure.

To achieve benefits during 12th Plan period, it would be necessary that DPRs of identified projects are available by March, 2009 and E&F clearance, investment decision as well as



financial closure are achieved by September, 2010. However, for some of the small sized schemes having comparatively shorter construction period where DPRs would be available beyond March, 2009 could also be considered. Regular monitoring of the hydro electric projects which are under Survey & Investigation is required so that DPRs would be available by March, 2009.

Efforts would need to be made to resolve the environment related problems in respect of projects where DPRs are either available or are nearing completion and would be submitted by March 2009 after updation. Together with preparation of DPR, the project proponent needs to initiate detailed EIA studies and EMP Plan, so that E&F clearance for taking up the construction of the schemes could be obtained expeditiously.

Categorisation

Based on present status of preparedness, the candidate hydro projects have been categorised as per following criteria:

Category 'A'

- (i) Project under construction,
- (ii) Project already allotted by State Govt. to a developer and DPR ready or likely to be ready by March, 2009 and no litigation or inter-state aspects are involved.

Category 'B1'

- (i) Project for which DPR is likely to be ready by Sept' 2009, may involve problem/issues of low magnitude that can be sorted out with some efforts
- (ii) Project declared as National Project as no funding problem is anticipated for such project. For such project also, DPR should be ready by Sept.'2009.

Category 'B'

Project involving issues / problems, the possibility of whose resolution is 50:50. DPR preparation in most cases in progress and likely to be completed after Sept.' 2009. Realization of benefits during 12th Plan is somewhat uncertain.

Category 'C'

Project either not allotted so far, facing problems such as litigation, local unrest, inter-state problems, project area falling under wild life sanctuary, E&F problem or low priority by the State Govt. Remote possibility of benefit realization in 12th Plan.

Projects under category 'A' and 'B1', having higher level of confidence, have been considered for benefits during 12th Plan.

The schemes identified for commissioning during 12th Plan and beyond were reviewed in the meetings held with the representatives of CPSUs, State Govt. and private developers held during August 2008. Based on the categorization criterion and present status of preparedness, a shelf of 109 candidate hydro projects aggregating to 30,920 MW having higher level of confidence for realizing benefits during 12th Plan has been finalised. The status of these projects is given below:



Sl. No.	Status of Scheme	Central Sector		State Sector/ Unallocated		Private Sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	0	0	0	0	2	620	2	620
2.	Sanctioned but construction yet to start	2	1330	2	331	-	-	4	1661
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	10	4456	5	790	6	695	21	5941
4.	DPR Under examination								
a)	By CEA	1	260	1	130	2	725	4	1115*
b)	By State Govts.	-	-	1	40	4	702	5	742
5.	DPRs formulated	1	420	2	1460	-	-	3	1880
6.	DPRs Returned by CEA for revision/ Re-submission	5	3016	16	3464	4	1484	25	7964
7.	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	4	1808	4	732	17	5803	25	8343
b)	Schemes for which DPR expected to be submitted during 2009-10	5	332	4	344	11	1978	20	2654
	Total	28	11622 (37%)	35	7291 (24%)	46	12007 (39%)	109	30920 (100%)

• Total capacity is 2915 MW, out of which 1115 MW have been planned for commissioning in 12th Plan.

Category-wise status of these schemes is given below:

Sl. No.	Status of Schemes	Category 'A'		Category 'B1'		Total	
		No.	Installed Capacity MW	No.	Installed Capacity MW	No.	Installed Capacity MW
1.	Under construction	2	620	0	0	2	620
2.	Sanctioned but construction yet to start	2	1330	2	331	4	1661
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	18	3375	3	2566	21	5941
4.	DPRs formulated	0	0	3	1880	3	1880
5.	DPR Under Examination	6	737	3	1120	9	1857

6.	DPRs Returned by CEA for revision/ Re-submission	12	2963	13	5001	25	7964
7	DPR under preparation	13	2998	32	7999	45	10997
Total		53	11930	56	18990	109	30920

On detailed examination, commissioning of a hydro capacity of 25,316 MW seems feasible during 12th Plan. However, remaining 13 Nos. schemes having aggregate capacity of 5604 MW need to be pursued for early completion of their DPRs and obtaining other statutory clearances.

Evacuation of power from hydro projects need to be planned basin-wise. Development of minimum generating capacity in a basin is required to make evacuation system viable. Comprehensive transmission system for each basin has been evolved by CEA for development in a phased manner and components of the transmission system associated with specific generation and transmission system from the pooling stations to the de-pooling stations have been identified. As the transmission system for evacuation of power from the hydro projects would benefit the region where these projects are located as well as other regions which will avail the power, the probable buyers who would have a long-term commitment for the transmission charges for each of these transmission systems have also been identified. Basin-wise transmission plan for the Northern and North Eastern projects including the hydro projects in Sikkim is being made available on CEA's web site.

Issues & Constraints

Some of the issues required to be addressed to facilitate development of hydro projects are:

- Adoption of suitable means during planning, investigations and construction stages to minimize geological surprises.
- Non-availability of hydrological data recorded with CWC/Brahmaputra Board and other Govt. agencies resulting in delay in preparation of DPRs to Private developers.
- Non-availability of topo sheets of project area to private developers.
- Development of transmission system matching with commissioning of hydro projects located in remote areas.
- Delay in Environmental & Forest Clearance.
- Lack of infrastructure facilities like roads, construction power, reliable tele-communication system.
- Resolution of issues relating to land acquisition and R&R.
- Building ups of skilled manpower around project area.
- Apportionment of catchment area treatment among various beneficiaries.
- Recent norms of net present value and its upfront payment for assessing the cost of forest diversion leading to huge financial burden on the storage projects.
- Conversion of storage schemes to ROR schemes on the insistence of State Govt.

Fund Requirement

25,316 MW hydro capacity addition appears to be feasible for commissioning during 12th Plan period. To achieve this, the fund requirement during 11th and 12th Plans would be of the order of Rs.68,924 crores and Rs.82,972 crores respectively. The sector-wise breakup of fund requirements is given below:

Fund Required for 12th Plan Projects (25,316 MW)

Period	Central Sector	State Sector	Private Sector	Total
Expenditure during 11th Plan	20,041	22,306	26,577	68,924
Expenditure during 12th Plan	28,475	31,838	22,659	82,972
Total	48,516	54,144	49,236	1,51,896

Conclusions / Recommendations

- It has been proposed to maximize hydro capacity addition during 12th Five Year Plan for reducing CO₂ emissions and energy security of the country. A shelf of 109 candidate hydro electric schemes aggregating to 30920 MW has been identified. State-wise break up of these schemes is given below:

Sl. No	States	Central Sector		State Sector		Private Sector		Total	
		No.	MW	No	MW	No.	MW	No.	MW
1.	Himachal Pradesh	2	816	7	892	6	749	15	2457
2.	Jammu & Kashmir	4	2450	4	1473	0	0	8	3923
3.	Uttarakhand	12	4374	7	1655	5	829	24	6858
4.	Punjab	0	0	1	168	1	75	2	243
5.	Madhya Pradesh	3	166	0	0	0	0	3	166
6.	Andhra Pradesh	0	0	3	1560	0	0	3	1560
7.	Kerala	0	0	6	373	0	0	6	373
8.	Karnataka	0	0	2	400	0	0	2	400
9.	West Bengal	1	120	2	66	0	0	3	186
10.	Sikkim	1	520	0	0	10	1935	11	2455
11.	Arunachal Pradesh	3	1610	0	0	23	7969#	26	9579
12.	Assam	0	0	1	150	0	0	1	150
13.	Manipur	2	1566	0	0	0	0	2	1566
14.	Tamil Nadu	0	0	1	500	0	0	1	500
15.	Meghalaya	0	0	1	54	1	450	2	504
	TOTAL	28	11622	35	7291	46	12007	109	30920

Includes only 600 MW out of 2400 MW Siang Lower H. E. Project for capacity addition during 12th Plan.

- Considering the present preparedness and anticipated difficulties in execution of the shelf of projects, commissioning of 25,316 MW appears to be feasible during the 12th Five Year Plan. However, it is proposed to pursue all the identified projects for finalization of DPRs, environmental clearance, CEA clearance, etc.



- 21 Nos. hydro schemes with aggregate installed capacity of 5941 MW, which have been accorded concurrence by CEA/ clearance by State Govt., need to be taken up immediately after getting other statutory clearances as applicable including financial closure.
- For all other identified projects for benefits during 12th Plan, all statutory clearances including financial closure would be required latest by September, 2010. Orders for main civil, mechanical and electro-mechanical packages should be placed simultaneously thereafter to ensue their commissioning during the 12th Plan.
- For projects held up for E&F problems, efforts may be made by the concerned State Govt. / developer to get the timely E&F clearances.
- Problems such as local agitation (law & order), land acquisition, etc. need to be resolved by the concerned State Government.
- Tendency of converting storage projects (as identified by CEA) to Run-of-River projects should be discouraged.
- Project developer should seek long term open access by indicating at least the region(s) in which they intend to supply their power to enable development of transmission system.
- Project developers should contribute to building up of skilled man power in the project area in various trades required by the project to promote better employment opportunities to local population. Existing ITI may be adopted by them to provide modern workshop facilities, arranging guest faculty to train the instructors and students. In areas where ITI is not existing, new ITI could be opened by the project developers. These activities should be taken up well before commencing the main construction activities to ensure timely availability of skilled manpower for the contractors/sub contractors and for meeting their own requirements.

HYDRO DEVELOPMENT PLAN FOR 12TH FIVE YEAR PLAN (2012-17)

1. Introduction

1.1 Background

Hydro power is a renewable, economic and non-polluting source of energy. Hydro power stations have inherent ability of quick starting, stopping and load variations offering operational flexibility and help in improving reliability of power system. Hydro stations are the best choice for meeting the peak demand. The generation cost is not only inflation free but reduces with time. Hydroelectric projects have long useful life extending over 50 years and help in conserving scarce fossil fuels. They also help in opening of avenues for development of remote and backward areas. Development of hydro power resources is important for energy security of the country. It takes about 10 years for developing a large size hydro project from planning to commissioning. The construction period of a large hydro project after placement of Letter of Award for the main packages could span 5 years or more. It is therefore necessary to prepare a long term plan of hydropower development covering at least 10 years period. Central Electricity Authority (CEA) has, therefore, prepared this report covering planning of hydro power projects during 11th & 12th Plan period.

1.2 Reassessment of Hydro Electric Potential (1978-87)

1.2.1 The first systematic and comprehensive study to assess the hydro-electric resources in the country was undertaken during the period 1953-1959 by

the Power Wing of the erstwhile Central Water and Power Commission. This study placed the economical utilizable hydro power potential of the country at 42100 MW at 60% load factor (corresponding to an annual energy generation of 221 billion units).



Machine Hall of 1500 MW Nathpa Jhakri Project

- 1.2.2 The Reassessment studies (1978-87) of Hydro Electric Potential were undertaken by CEA for providing up-to-date data of hydro electric potential of the country and facilitate development of hydro power capacity.
- 1.2.3 The Reassessment study completed in 1987 revealed that the Hydro Electric Power Potential of the country was of the order of about 84,000 MW at 60% load factor (with probable installed capacity of about 1,50,000 MW) from a total of 845 Nos. schemes as against 42,000 MW from 250 Nos. schemes identified at the time of the first survey in the years 1953-1959. In addition, 56 Nos. sites for development of Pumped

Storage Schemes with likely aggregate installed capacity of about 94,000 MW were also identified in various regions of the country.

1.2.4 The basin-wise hydro electric power potential of the country as per Reassessment Studies is as under:

River Basin	No. of Schemes	Probable Installed Capacity (MW)
Indus	190	33382
Brahmaputra	226	66065
Ganga	142	20711
Central Indian River System	53	4152
West Flowing Rivers of Southern India	94	94300
East flowing Rivers of Southern India	140	14511
Total	845	148701
Pumped Storage Schemes	56	94,000

1.3 Ranking Studies

1.3.1 To give necessary fillip for development of the balance hydro electric schemes and with a view to prioritize the large number of identified schemes to harness vast untapped hydro resources in the order of their attractiveness for implementation, ranking studies were carried out by CEA in October, 2001. The Ranking Study gives inter-se prioritization of the projects which could be considered for further implementation including their survey & investigation so that hydro power development is effected in an appropriate sequence.

1.3.2 The ten major aspects which play vital role in the implementation of the hydro projects were adopted in the criteria considered for ranking study. These were R&R aspects, international aspects, interstate aspects,

potential of the scheme, type of scheme, height of dam, length of tunnel / channel, accessibility to site, status of the project and status of upstream or downstream hydel development. For each of the criteria, certain marks with weightage were allotted on its applicability to each individual project.



Panoramic view of 1000 MW Indira Sagar Project

1.3.3 400 schemes with probable installed capacity of about 1,07,000 MW were prioritized under categories A, B & C. River Basin-wise summary of categorization of the schemes is given below:

Sl. No.	River System	Category A		Category B		Category C		Total	
		Nos	MW	Nos	MW	Nos	MW	Nos	MW
1	Indus	11	4088	51	8811	17	6080	79	18979
2	Ganga	20	2023	54	9616	1	600	75	12239
3	Central Indian	3	283	9	1425	1	186	13	1894
4	East Flowing	11	1412	26	6469	2	88	39	7969
5	West Flowing	1	35	10	958	14	1508	25	2501
6	Brahmaputra	52	7800	97	42574	19	12954	168	63328
Total:		98	15641	247	69853	54	21416	399	106910

1.4 Preparation of Preliminary Feasibility Reports (PFR's) under 50,000 MW Hydroelectric Initiative

1.4.1 Hon'ble Prime Minister of India launched a programme for preparation of Preliminary Feasibility Reports (PFRs) in respect of 162 hydro-electric schemes (located in 16 States) on 24.5.2003. The scheme was formulated by CEA and sanctioned by the Ministry of Power on 31st March, 2003 at a cost amounting to Rs. 24.95 crores.

1.4.2 The state-wise details of Preliminary Feasibility Report prepared under the above programme are given below :

Sl. No.	State	Number of Schemes	Installed Capacity (MW)
1.	Andhra Pradesh	1	81
2.	Arunachal Pradesh	42	27293
3.	Chhattisgarh	5	848
4.	Himachal Pradesh	15	3328
5.	Jammu & Kashmir	13	2675
6.	Karnataka	5	1900
7.	Kerala	2	126
8.	Madhya Pradesh	3	205
9.	Maharashtra	9	411
10.	Manipur	3	362
11.	Meghalaya	11	931
12.	Mizoram	3	1500
13.	Nagaland	3	330
14.	Orissa	4	1189
15.	Sikkim	10	1469
16.	Uttarakhand	33	5282
	Total	162	47930

Based on the projected tariff of the various schemes, 77 projects with installed capacity of 33951 MW were selected for preparation of Detailed Project Report and development.

2. Hydro power development up to 11th Plan

2.1 Growth of hydro power up to 9th Plan

The plan wise growth of hydro power in the total installed capacity of the country is given as under:

Plan-wise growth and share of Hydro Power			
Plan Period	Installed Capacity at the end of Plan (MW)		
	Hydro	Total (including Renewable)	Hydro as % of Total
1 st Plan (1951-56)	1061	2886	36.78
2 nd Plan (1956-61)	1917	4653	41.19
3 rd Plan (1961-66)	4124	9027	45.68
Three Annual Plans (1966-69)	5907	12957	45.58
4 th Plan (1969-74)	6966	16664	41.80
5 th Plan (1974-79)	10833	26680	40.60
Annual Plan (1979-80)	11384	28448	40.01
6 th Plan (1980-85)	14460	42585	3.96
7 th Plan (1985-90)	18307	63636	28.77
Two Annual Plans (1990-92)	19194	69065	27.79
8 th Plan (1992-97)	21658	85795	25.24
9 th Plan (1997-02)	26269	105046	25.00

It would be seen from the above that hydro share was above 45% at the end of 3rd Plan which was reduced to 25 % at the end of 9th Plan (1997-02).



Dam view upstream of 280 MW Dhauliganga Project

2.2 10th Plan Hydro Development

The Working Group of power for the 10th Plan had recommended need based capacity addition of 41,110 MW which included hydro capacity addition of 14,393 MW comprising of 8742 MW in central sector, 4481 MW in state sector and 1170 MW in Private Sector. However, hydro capacity of 7886 MW comprising of 4495 MW in Central Sector, 2691 MW in State Sector and 700 MW in Private Sector could actually be commissioned during the 10th Plan. Thus only 55% of the planned hydro capacity could be achieved. The main reasons for slippages in 10th Plan are delay in supplies / erection by suppliers / contractor, delay in award of works, delay in clearances / investment decisions, law & order problems and such other reasons like delay in environmental clearances, geological surprises, natural calamities, R&R issues, delay in signing of MOU, court cases, etc. The breakup of reasons for slippages in 10th Plan hydro capacity addition are give below:

Sl. No.	Major Reasons of slippage	Capacity (MW)
i.	Delay in supplies / erection by suppliers / contractors	679
ii.	Delay in award of works mainly in state sector	222
iii.	Delay in clearance / investment decisions (Hydro Projects)	2391
iv.	Law & Order Problems	60
v.	Delay in environmental clearance, geological surprises, natural calamities, R&R issues, delay in signing of MoU and Court Cases	3155
	Total	6507

2.3 Hydro Installed Capacity at the end of 10th Plan (31.3.2007)

Sector	Installed Capacity
Central	7562
State	25786
Private	1306
Total	34654

(Above capacity includes small hydro capacity aggregating to 1168 MW)

2.4 11th Plan Hydro Development Programme

A capacity addition of 78,700 MW comprising of 59,693 MW from thermal projects, 15,627 MW from hydro projects and 3380 MW from nuclear projects has been approved during the 11th Plan period. Out of 15,627 MW hydro projects, 8654 MW has been proposed in Central Sector, 3482 MW in State Sector and 3491 MW in Private Sector. Project-wise details of hydro projects planned for commissioning in 11th Plan are given at **Annex-1**.

In order to avoid slippages while planning for capacity addition during 11th Plan, following strategy has been adopted while including the candidate projects in the list of 11th Plan projects:

- Projects already under construction before the commencement of the 11th Plan.
- Those hydro projects whose concurrence has been issued by CEA and orders for main packages are likely to be placed by March, 2007.
- Apart from the above, some small capacity hydro projects which are ROR type, surface power house and whose gestation period is less than 5 years have also been included.



Dam View of 540 MW Chamara Stage-I H. E. Project

Out of 15627 MW envisaged for commissioning during 11th Plan, the following projects with total installed capacity of 4750 MW, expected to be commissioned during the terminal year of the 11th Plan (2011-12), are running behind schedule and are critical for commissioning during the 11th Plan:

Sl. No.	Project Name	Executing Agency	Installed Capacity MW)
i)	Parbati Stage-II, H.P.	NHPC	800
ii)	Loharinagpala, Uttarakhand	NTPC	600
iii)	Tapovan Vishnugad, Uttarakhand	NTPC	520
iv)	Subansiri Lower, Ar. Pradesh	NHPC	2000
v)	Kameng, Ar. Pradesh	NEEPCO	600
vi)	Sawara Kudu, H. P.	PVC	110
vii)	Lower Jurala, A. P.	APGENCO	120
	Total		4750

On account of delay in placement of orders for supply of generating equipment on M/s Alstom consequent to backing out of Chinese firm, 120 MW capacity at Lower Jurala (6x40 MW) is likely to slip from 11th Plan. The project developers in respect of other six projects should prepare catch up plans for accelerated construction of these projects to make-up for the past delays in completion of the projects.

During the 11th Plan up to 31.08.2008, 2712 MW hydro capacity has been commissioned. **The total hydro capacity as on 31.08.08 is as under:**

Sector	Installed Capacity
Central	8592
State	27468
Private	1306
Total	37366

(Above capacity includes small hydro capacity aggregating to 1168 MW)

3. Strategy for hydro development for benefits during 12th Plan period

3.1 As per the studies carried out by CEA to assess the requirement of additional capacity during the 12th Plan (2012-2017), the requirement of

installed capacity to meet the all India peak demand and energy requirement at the end of 12th Plan would require a capacity addition of over 90,000 MW in the 5 years period of 2012-17. In pursuing low carbon growth strategy, it would be our endeavour to maximize exploitation of hydro power potential. This is also necessary for energy security of the country.

- 3.2** To achieve the ambitious programme of hydro capacity addition during 12th Plan period, it was deliberated to identify a shelf of hydro projects totaling to over 40,000 MW. **Accordingly, a shelf of 146 candidate projects (Annexure-II) with aggregate installed capacity of 58573 MW was identified by CEA in the year 2006-07. The status of preparation of DPRs of the candidate projects is being monitored on regular basis.**
- 3.3** Advance action on the identified hydro electric schemes needs to be taken in the early part of 11th Plan period itself as long period is required for development of DPRs, obtaining various clearances like Environment & Forest clearances, CEA clearance, investment decision and achieving financial closure.
- 3.4** To achieve benefits during 12th Plan period, it would be necessary that DPRs of identified projects are available by March, 2009 and E&F clearance, investment decision as well as financial closure are achieved by September, 2010 and orders for main packages are placed immediately thereafter. However, for some of the small sized schemes having comparatively shorter construction period where DPRs would be available beyond March, 2009 have also been considered. Regular monitoring of the hydro electric projects which are under survey & investigation is required so that DPRs could be prepared by March, 2009. Efforts would need to be made to resolve the environment related

problems in respect of projects where DPRs are either available or are nearing completion and could be submitted by March 2009 after updation. Together with preparation of DPR, the project proponent needs to initiate detailed EIA studies and EMP Plan, so that E&F clearance for taking up the construction of the scheme could be obtained expeditiously.



Dam Side View of 1000 MW Indira Sagar Project

4. Categorisation of Available Hydro Potential

Criterion of Categorisation

Following factors have been considered to categorise the candidate hydro schemes for deciding projects for 12th Plan:

- Present status of allotment of hydro power project site by the State Govt. to developer.
- Progress made by the developer since allotment of project site by the State Govt.
- Status of preparation of DPR, Survey & investigation

- Site specific problem, if any
- Inter-state or international issues involved
- Environment/ forest clearance problems. Difficulties in development of projects in forest/ wild life sanctuary area.
- Any pending litigation
- Other factors like if the scheme is declared as a National Project

Categorisation under A, B1, B and C:

The candidate hydro projects have been categorised as below:

Category ‘A’

- (i) Project under construction,
- (ii) Project already allotted by State Govt. to a developer and DPR ready or likely to be ready by March, 2009 and no litigation or inter-state aspects are involved.

Category ‘B1’

- (i) Project for which DPR is likely to be ready by Sept’ 2009, may involve problem/ issues of low magnitude that can be sorted out with some efforts
- (ii) Project declared as National Project as no funding problem is anticipated for such project. For such project also, DPR should be ready by Sept.’2009.

Category ‘B’

Project involving issues / problems, with possibility of resolution as 50:50 in the time frame envisaged for commissioning of the project in the 12th Plan. DPR preparation in most cases in progress and likely to be completed after Sept.’ 2009. Realization of benefits during 12th Plan is somewhat uncertain.

Category ‘C’

Project either not allotted so far, facing problems such as litigation, local unrest, interstate problems, project area falling under wild life sanctuary, E&F problem or low priority by the State Govt.. Remote possibility of benefit realization in 12th Plan.

Projects only under category ‘A’ and ‘B1’ having higher levels of confidence have been considered for benefits during 12th Plan.



Machine Hall of 1000 MW Indira Sagar Project

5. Availability of Hydro Projects for benefits during 12th Plan

To meet the requirement of additional capacity during 12th Plan (2012-17), a shelf of 109 candidate hydro projects aggregating to 30920 MW under Categories ‘A’ and ‘B1’ having higher level of confidence for realizing benefits during 12th Plan, based on their

present status of preparedness, has been finalised. List of these schemes is given at Annex-III. The status of these projects (sector-wise) is given below:

Sl. No.	Status of Scheme	Central Sector		State Sector/ Unallocated		Private Sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	0	0	0	0	2	620	2	620
2.	Sanctioned but construction yet to start	2	1330	2	331	-	-	4	1661
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	10	4456	5	790	6	695	21	5941
4.	DPR Under examination								
a)	By CEA	1	260	1	130	2	725	4	1115*
b)	By State Govts	-	-	1	40	4	702	5	742
5.	DPRs formulated	1	420	2	1460	-	-	3	1880
6.	DPRs Returned by CEA for revision/ Re-submission	5	3016	16	3464	4	1484	25	7964
7	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	4	1808	4	732	17	5803	25	8343
b)	Schemes for which DPR expected to be submitted during 2009-10	5	332	4	344	11	1978	20	2654
	Total	28	11622 (37%)	35	7291 (24%)	46	12007 (39%)	109	30920 (100%)

* Total capacity is 2915 MW, out of which 1115 MW have been planned for commissioning in 12th Plan.

State-wise (sector-wise) break up of identified H. E. Projects for benefits during 12th Plan is given below:

Sl. No.	States	Central Sector		State Sector		Private Sector		Total	
		No.	MW	No.	MW	No.	MW	No.	MW
1.	Himachal Pradesh	2	816	7	892	6	749	15	2457
2.	Jammu & Kashmir	4	2450	4	1473	0	0	8	3923
3.	Uttarakhand	12	4374	7	1655	5	829	24	6858
4.	Punjab	0	0	1	168	1	75	2	243
5.	Madhya Pradesh	3	166	0	0	0	0	3	166
6.	Andhra Pradesh	0	0	3	1560	0	0	3	1560
7.	Kerala	0	0	6	373	0	0	6	373
8.	Karnataka	0	0	2	400	0	0	2	400
9.	West Bengal	1	120	2	66	0	0	3	186
10.	Sikkim	1	520	0	0	10	1935	11	2455
11.	Arunachal Pradesh	3	1610	0	0	23	7969#	26	9579
12.	Assam	0	0	1	150	0	0	1	150
13.	Manipur	2	1566	0	0	0	0	2	1566
14.	Tamil Nadu	0	0	1	500	0	0	1	500
15.	Meghalaya	0	0	1	54	1	450	2	504
	TOTAL	28	11622	35	7291	46	12007	109	30920

This includes only 600 MW out of 2400 MW Siang Lower H. E. Project for capacity addition during 12th Plan.

State-wise (sector-wise) status of implementation is given at **Annex-IV**.

5.1 Schemes under construction

Out of the schemes identified for benefits during 12th Plan, two schemes namely Teesta VI (500 MW) and Rangit IV (120 MW) both in Private

Sector and located in Sikkim are presently under construction. Details are given at **Annex-V**.

5.2 Sanctioned Schemes on which construction yet to start

4 Nos. hydroelectric schemes aggregating to 1661 MW have been accorded concurrence by CEA / clearance by State Govt. and have obtained investment approval. Out of these, 2 schemes (1330 MW) are in Central Sector and 2 schemes (331 MW) in State Sector. Project-wise details are given at **Annex-VI**.

5.3 Schemes accorded Concurrence / TEC and awaiting Investment Approval

21 No. hydroelectric schemes aggregating to 5941 MW have been accorded concurrence by CEA/ clearance by State Govt. and are awaiting investment approval. Out of these, 10 schemes (4456 MW) are in Central Sector, 5 schemes (790 MW) in State Sector and 6 schemes (695 MW) are in Private Sector. Project-wise details are given at **Annex-VII**.

5.4 Schemes for which Detailed Project Reports (DPR) formulated

For 3 Nos. hydroelectric schemes aggregating to 1880 MW, DPRs have been formulated. Out of these, one scheme (420 MW) is in Central Sector and 2 schemes (1460 MW) are in State Sector. Project-wise details are given at **Annex-VIII**.

5.5 Schemes for which Detailed Project Reports (DPR) are under Examination of CEA/ State Authorities

For 9 Nos. hydroelectric schemes having aggregate installed capacity of 3657 MW, out of which 1857 MW of generating capacity is planned for commissioning during 12th Plan, DPRs are under examination of CEA/

State Authorities. Out of 4 Nos. schemes aggregating to 1115 MW, under examination of CEA, one scheme (260 MW) is in Central Sector, one scheme (130 MW) is in State Sector and 2 Nos. schemes (725 MW) are in Private Sector. Further, 5 No. Schemes aggregating to 742 MW are under examination of State Authorities, out of which one scheme (40 MW) is in State Sector and 4 Nos. schemes (702 MW) are in Private Sector. Project-wise details are given at **Annex-IX**.

5.6 Schemes for which Detailed Project Reports (DPR) returned by CEA for revision/ re-submission

Out of 25 Nos. hydroelectric schemes aggregating to 7964 MW for which DPRs have been returned by CEA for revision/ re-submission, 5 schemes (3016 MW) are in Central Sector, 16 schemes (3464 MW) are in State Sector and 4 schemes (1484 MW) are in Private Sector. Details are given at **Annex-X**.

5.7 Schemes for which DPRs are yet to be prepared

For 45 Nos. hydroelectric schemes aggregating to 10997 MW, DPRs are yet to be prepared. Out of these, formulation of DPRs for 25 Nos. schemes aggregating to 8343 MW are in advance stage and likely to be completed by March'09. These consist of 4 Nos. schemes (1808 MW) in Central Sector, 4 Nos. schemes (732 MW) in State Sector and 17 Nos. schemes (5803 MW) in Private Sector. For remaining 20 Nos. schemes (2654 MW) consisting of 5 Nos. schemes (332 MW) in Central Sector, 4 Nos. schemes (344 MW) in State Sector and 11 Nos, schemes (1978 MW) in Private Sector, the DPRs are expected to be completed during 2009-10. Project wise details are given at **Annex-XI**.

5.8 Schemes with E&F problems

Out of the schemes identified for benefits during 12th Plan, 2 Nos. schemes aggregating to 520 MW are facing environment and forest related problems such as project area falling in reserved forest areas and submergence related problems. For example in case of Kameng Dam Project, dam site is now proposed to be shifted to avoid submergence of Seppa Town resulting in reduction of installed capacity from 600 MW to 480 MW. Project wise details are given at **Annex-XII**.



Diversion Dam of 1500 MW Nathpa Jhakri H. E. Project

5.9 Schemes with problems such as local agitation, land acquisition and R&R

6 Nos. HE schemes aggregating to 1547 MW out of the identified schemes for benefits during 12th Plan, are facing resistance by local bodies etc. hampering even Survey & Investigations in the project area. 3 Schemes (166 MW) in Madhya Pradesh are not progressing on account

of rehabilitation and resettlement problems. Details of above schemes are given at **Annex-XIII**.

5.10 Status-wise categorization of 109 schemes having aggregate installed capacity of 30,920 MW under categories ‘A’ and ‘B1’ is summarized below:

Sl. No.	Status of Schemes	Category ‘A’		Category ‘B1’		Total	
		No.	Installed Capacity MW	No.	Installed Capacity MW	No.	Installed Capacity MW
1.	Under construction	2	620	0	0	2	620
2.	Sanctioned but construction yet to start	2	1330	2	331	4	1661
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	18	3375	3	2566	21	5941
4.	DPRs formulated	0	0	3	1880	3	1880
5.	DPR Under Examination	6	737	3	1120	9	1857
6.	DPRs Returned by CEA for revision/ Re-submission	12	2963	13	5001	25	7964
7	DPR under preparation	13	2998	32	7998.5	45	10996.5
Total		53	11930	56	18989.5	109	30919.5
						Say	30920 MW

After detailed examination, commissioning of a hydro capacity of 25,316 MW seems feasible during 12th Plan. Following 13 Nos. schemes,

having aggregate capacity of 5604 MW need to be pursued for early completion of their DPRs and obtaining other statutory clearances.

Sl. No.	Project Name/ State	Installed capacity (MW)	Sector	Remarks
1.	Bajoli Holi, H.P.	180	P.S.	DPR submission schedule- Feb.,10.
2.	Hoshangabad, M.P.	60	C.S.	R&R and environment issues involved.
3.	Handia, M.P.	51	C.S.	R&R and environment issues involved.
4.	Bauras, M.P.	55	C.S.	R&R and environment issues involved.
5.	Pambar, Kerala	40	S.S.	Power house falls under reserve forest
6.	Pema Shelphu, Ar. Pradesh	97.5	P.S.	DPR submission schedule- July,09.
7.	Kangtangshri, Ar. Pradesh	60	P.S.	DPR submission schedule- July,09.
8.	Kirthai-I, J&K	240	S.S.	Financial problem
9.	Tawang-I, Ar. Pradesh	750	C.S.	Long construction period.
10.	Demwe Upper, Ar. Pradesh	1640	P.S.	Project features yet to be finalized. Long construction period.
11.	Kameng dam, Ar. Pradesh	480	P.S.	DPR submission schedule- Mar,10.
12.	Kynshi-I, Meghalaya	450	P.S.	Facing problem in getting data from Brahmaputra Board.
13.	Tipaimukh, Manipur	1500	C.S.	Long construction period
	Total	5603. 5		
	Say 5604 MW			

However, it is proposed to pursue all the identified projects to expedite their preparation of DPR and obtain all the clearances at the earliest.

6.0 Transmission System

The generation resources in the country are unevenly located, the hydro potential mainly in the States of Northern and North Eastern Regions and coal being mainly in the eastern part of the country. Development of strong national grid is necessary to ensure evacuation of power from Generating Stations to the load centers within and outside the region. A strong all India grid would enable exploitation of unevenly distributed generation resources in the country to their optimum potential.

Evacuation of power from hydro projects has to be planned basin-wise. Development of minimum generating capacity in a basin is required to make evacuation system viable. Comprehensive transmission system for each basin has been evolved by CEA for development in a phased manner and components of the transmission system associated with specific generation and transmission system from the pooling stations to the de-pooling stations have been identified. As the transmission system for evacuation of power from the hydro projects would benefit the region where these projects are located as well as other regions which will avail the power, the probable buyers who would have a long-term commitment for the transmission charges for each of these transmission systems have also been identified. Basin wise transmission plan for the Northern and North-eastern projects including the hydro projects in Sikkim is being made available on CEA's web-site (www.cea.nic.in/).

For power evacuation from North-Eastern Region, planning of appropriate transmission system through the chicken neck area is of utmost importance. Transmission corridor through the chicken neck has been planned considering the evacuation not only from North-Eastern

Region, but also hydro power from Sikkim and Bhutan to Northern and Western Regions in the country. Transmission system comprising of 800kV HVDC bi-pole lines and 400 kV double circuit AC lines in the hybrid systems have been planned for evacuation of power through the chicken neck area.

All the project developers would be required to obtain Long Term Open Access (LTOA) for evacuation of power and for transmission of power to the identified beneficiaries. If exact buyers/States could not be identified, to start with, the project developer should specify the target Regions where the power would be absorbed, and accordingly, apply for LTOA for firming up of the transmission system. While planning the dedicated evacuation system from hydro power projects constraint of Right of Way (ROW) specially in hilly areas needs to be kept in view.



Almatti Dam

7.0 Issues & Constraints

7.1 Features of the hydro-electric projects, being site specific, depend on the geology, topography and hydrology at the site. In spite of detailed investigations carried out at the time of preparation of Detailed Project Report, there is still possibility of hydro projects facing some uncertainties during implementation of the project. Geological surprises may result in taking mitigation measures which could, inter-alia, increase the project cost. Construction time of a hydro project is, thus, greatly influenced by the geology of the area and its accessibility. Even when extensive investigations using state-of-the-art techniques are undertaken, an element of uncertainty remains in the sub-surface geology. The geological surprises during actual construction cannot be completely ruled out which inter-alia result in cost escalations and time over runs. Some of the projects which were affected due to geological surprises are Nathpa Jhakri (1500 MW) in H.P., Dulhasti (390 MW) in J&K and Rangit-III (60 MW) in Sikkim which have since been completed and Parvati-II (800 MW) in H.P., Sewa-II (120 MW) in J&K and Subansiri Lower (2000 MW) in Arunachal Pradesh which are under execution.

Geological surprises could be minimized by adopting suitable means during planning & investigation stage and during construction stage. During planning stage, the suitable project specific programme of investigations has to be planned and there should be regular interaction amongst planning, design & engineering formations with engineering, geology and geo-physical experts. Geological investigations should be taken up after certain preparatory works like accurate topographic surveys, procurement of good quality drilling machines, specialized manpower with drifting, etc., are complete. During construction stage,

site engineer must ensure that underground civil structures are properly secured to avoid unnecessary rock falls and hill slopes in proximity of major surface civil structures are properly stabilized.

- 7.2** Planning of the hydro electric project requires long term hydro-meteorological data which are collected by various Government agencies in the country. This hydrological data is often not available for adequate period for optimum planning of hydro schemes especially for those located in North-Eastern Region and leads to delays.
- 7.3** The developers face difficulty in obtaining data related to hydrology and topo sheets of the project area. The procedure for obtaining hydrological data and topo sheets needs to be streamlined. The hydrological data for Brahmaputra and Ganga basins available with Central Water Commission and Brahmaputra Board is not being made available to private developers resulting in delay in preparation of the DPRs. It would be desirable that the procedure for obtaining the hydrological data from these agencies is put on their website for reference of the developers. As regards the availability of topo sheets of the project area to the private developers, there is need to simplify the procedure by Survey of India.
- 7.4** Hydro-electric projects are generally located in remote hilly areas and construction of long transmission lines in difficult terrain for evacuation of power from these projects to the load centres takes considerable time. With State authorities taking time in exercising the option of buying whole power from the private developers, identification of power buyers and power delivery locations takes time, thus, delaying the finalization of transmission system associated with such hydro projects. The transmission system needs to be firmed up well in time so that completion of the transmission lines matches the commissioning schedule of such projects. The project developers could seek to be long

term user of the network by indicating at least the region (s) to which they intend to supply power, if it is not possible to indicate the exact buyer(s) of the power at this stage.

- 7.5** Hydro electric projects involve submergence and often require reserved as well as unreserved forest land for their implementation. The impact on ecology, monuments, seismicity, resettlement and rehabilitation, catchment area treatment, flora and fauna are assessed in the Environment Appraisal of the project. Forest clearances also require Compensatory Afforestation on the non-forest lands. Availability of non-forest land in some States like Arunachal Pradesh, Himachal Pradaesh would be difficult. The resolution of these aspects is often time consuming and results in delays in the clearance of the projects. For the projects identified for benefits during 12th Plan, environmental clearance needs to be obtained on priority.
- 7.6** For development of hydro electric projects located in the remote areas, infrastructural facilities like construction of bridges, strengthening of existing roads, efficient and reliable tele-communication links, better road transport / air services etc. are required for their early implementation. Development of infrastructural facilities in hydro rich States needs to be planned so as to facilitate hydro development in these States.
- 7.7** Recent norms of Net Present Value and its upfront payment for assessing the cost of forest diversion need to be reviewed as the same have added huge financial burden on the storage hydro schemes making them unviable. The cost of Tipaimukh HEP (1500 MW) in Manipur has been finalized as Rs. 5808.87 Crores (Dec. 2004 Price Level), out of which Rs. 1100.78 Crores (19 %) is on account of NPV.

- 7.8** The Ministry of Environment and Forests insist on treatment of very highly degraded areas of free draining catchment i.e. up to the next project upstream, at the project cost, whereas degradation of catchment takes place due to various economic activities such as rising population pressure, developmental activities, over grazing and pressure of agricultural activities, wood requirement, etc. With a view to decrease the project cost, a review is required to be made to equitably apportion the cost amongst various beneficiary sectors like agriculture, irrigation and flood control etc., along with power component.
- 7.9** In the recent times, State Governments are encouraging development of run-off-river (ROR) type hydro projects only and in some cases, possible storage projects are being converted into 2 or 3 ROR schemes. Hutong (3000 MW) and Kalai (2600 MW) in Arunachal Pradesh were proposed as storage schemes in the Pre Feasibility Reports. However, each of these schemes were split into run-of-river (ROR) type schemes by the State Govt. and most of them have been allotted to private developers for implementation. It is well established that storage schemes provide necessary regulation to increase power generation during lean flow period and also provide flood moderation, irrigation and drinking water supply benefits. Therefore, any move to convert storage schemes into ROR schemes needs to be strongly discouraged. As per the studies for storage vis-à-vis ROR schemes available in CEA, ROR alternative(s) / conversion of storage schemes are generally less economical and result in higher power tariff.
- 7.10** Active construction of sanctioned H.E. schemes is held up in a number of cases simply on account of serious problems and difficulties in acquiring required land at various stages of construction viz.,
- During pre-diversion and post diversion periods

- For start of active construction
- For compensatory afforestation
- For resettlement and rehabilitation.

The problem of land acquisition is becoming more serious now. This needs to be handled keeping in view the sensitiveness of the land owners.

7.11 Govt. of India had initiated ‘adopt an ITI’ scheme to build up skilled manpower around the project area. Under the scheme, the project developer is expected to adopt an Industrial Training Institute (ITI) or open a technical training centre in the neighborhood of the project well before commencement of construction activities, upgrade the facilities for training of students in different trades needed for the project. This would provide an opportunity to local residents to improve their skills to get employment opportunities in the project.



Intake Structure of 1500 MW Nathpa Jhakri H. E. Project

8.0 Fund Requirement

25,316 MW hydro capacity addition appears to be feasible for commissioning during 12th Plan period. To achieve this, the fund requirement during 11th and 12th Plans would be of the order of Rs.68,924 crores and Rs.82,972 crores respectively. The sector-wise breakup of fund requirements is given below:

Plan	Central Sector	State Sector	Private Sector	Total
11 th Plan	20,041	22,306	26,577	68,924
12 th Plan	28,475	31,838	22,659	82,972
Total	48,516	54,144	49,236	1,51,896

9. Conclusions / Recommendations

- i) It has been proposed to maximize hydro capacity addition during 12th Five Year Plan for reducing CO₂ emissions and energy security of the country. A shelf of 109 candidate hydro electric schemes aggregating to 30920 MW has been identified. This includes 12 Nos. HE schemes (1855 MW) slipping from 11th Plan. The sector-wise breakup is as under:

Sector	No. of Schemes	Installed Capacity (MW)
Central	28	11622
State	35	7291
Private	46	12007
Total	109	30,920

Status-wise the above schemes have been classified as under:

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No	MW
1.	Under construction	0	0	0	0	2	620	2	620
2.	Sanctioned but construction yet to start	2	1330	2	331	-	-	4	1661
3.	Concurrence by CEA/ Clearance by State accorded	10	4456	5	790	6	695	21	5941
4.	DPR Under examination								
a)	By CEA	1	260	1	130	2	725	4	1115*
b)	By State Govts.	-	-	1	40	4	702	5	742
5.	DPRs formulated	1	420	2	1460	-	-	3	1880
6.	DPRs Returned by CEA for revision/ Re-submission	5	3016	16	3464	4	1484	25	7964
7	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	4	1808	4	732	17	5803	25	8343
b)	Schemes for which DPR expected to be submitted during 2009-10	5	332	4	344	11	1978	20	2654
	Total	28	11622	35	7291	46	12007	109	30920

* Total capacity is 2915 MW, out of which 1115 MW have been planned for commissioning in 12th Plan.

- ii) Considering the present preparedness and anticipated difficulties in execution of the shelf of projects, commissioning of 25316 MW appears to be feasible during the 12th Five Year Plan. However, we propose to pursue all the identified projects for finalization of DPRs, environmental clearance, CEA clearance, etc.
- iii) 21 Nos. hydro schemes with aggregate installed capacity of 5941 MW, which have been accorded concurrence by CEA/ clearance by State Govt., need to be taken up immediately after getting other statutory clearances as applicable including financial closure.
- iv) For all other identified projects for benefits during 12th Plan, all statutory clearances including financial closure would be required by September, 2010. All out efforts would have to be made for achieving the same.
- v) For projects held up for E&F problems, efforts may be made by the concerned state Govt. / developer to get the timely E&F clearances.
- vii) Problems such as local agitation (law & order), land acquisition, etc. need to be resolved by the concerned State Government.
- viii) Tendency of converting storage projects (as identified by CEA) to Run-of-River projects should be discouraged.
- ix) Suitable means need to be adopted during planning & investigation stage and during construction stage to minimize geological surprises.
- x) The procedure for obtaining hydrological data and topo sheets needs to be streamlined.
- xi) The associated transmission system needs to be firmed up well in time so that completion of the transmission lines matches the commissioning schedule of concerned projects.

- xii) Project developer should seek long term open access by indicating at least the Region(s) in which they intend to supply their power to enable development of transmission system.
- xiii) For development of hydro electric projects located in the remote areas, infrastructural facilities like construction of bridges, strengthening of existing roads, efficient and reliable tele-communication links, better road transport / air services etc. are required for their early implementation. Development of infrastructural facilities in hydro rich States needs to be planned so as to facilitate hydro development in these States.
- xiv) Recent norms of Net Present Value and its upfront payment for assessing the cost of forest diversion need to be reviewed as the same have added huge financial burden on the storage hydro schemes making them unviable.
- xv) Project developers should contribute to building up of skilled man power in the project area in various trades required by the project to promote better employment opportunities to local population. Existing ITI may be adopted by them to provide modern workshop facilities, arranging guest faculty to train the instructors and students. In areas where ITI is not existing, new ITI could be opened by the project developers. These activities should be taken up well before commencing the main construction activities to ensure timely availability of skilled manpower for the contractors/sub contractors and for meeting their own requirements.

Hydro Electric Projects Planned For Benefits in 11th Plan

(As on 31.08.08)

Sl. No.	Name of Project/Executing Agency/State	Sector	Rating Nox MW = MW	Year wise Capacity addition in MW during 11 th plan					Total
				2007-08	2008-09	2009-10	2010-11	2011-12	
1.	Omkareshwar NHDC, MP.	Central	8x65 = 520	520*					
2.	Teesta-V NHPC, Sikkim.	Central	3x170 = 510	510*					
3.	Purulia PSS WBSEB, WB.	State	4x225 = 900	900*					
4.	Balimela Extn. OHPC, Orissa	State	2x75 = 150	150*					
5.	Maneri Bhali-II UJVNL, Uttra.	State	4x76 = 304	304*					
6a.	Priyadarshini Jurala APGENCO, AP.	State	6x39 = 234	39*	39*				
7.	Ghatghar WRD, Mah.	State	2x125 = 250		250*				
8.	Baglihar JKPDC, J&K	State	3x150 = 450		450				
6b.	Priyadarshini Jurala APGENCO, AP.	State	6x39 = 234		78				
9.	Varahi Ext KPCL, Ktk.	State	2x115 = 230		230				
10a.	Kuttiyadi Adl. Extn. KSEB, Kerala	State	2x50 = 100		50				
11.	Kol Dam NTPC, HP.	Central	4x200 = 800			800			
12.	Sewa-II NHPC, J&K.	Central	3x40 = 120			120			
13.	Teesta Low Dam-III NHPC, WB.	Central	4x33 = 132			132			
6c.	Priyadarshini Jurala APGENCO, AP.	State	6x39 = 234			78			
14.	Nagarjuna Sagar TR APGENCO, AP.	State	2x25 = 50			50			
10b.	Kuttiyadi Adl. Extn. KSEB, Kerala	State	2x50 = 100			50			
15.	Bhawani Kattalai Barrage - III TNEB, TN.	State	2x15 = 30			30			
16.	Myntdu-LeishkaSt-I MeSEB, Meghalaya	State	2x42 = 84			84			
17.	Allain Duhangan ADHPL, HP.	Private	2x96 = 192			192			
18.	Budhil LANCO, HP.	Private	2x35 = 70			70			
19.	Malana-II Everest PC, HP.	Private	2x50 = 100			100			
20.	Chujachen GATI, Sikkim	Private	2x49.5 = 99			99			
21.	Chamera St.-III NHPC, HP.	Central	3x77 = 231				231		
22.	Parbati St.-III NHPC, H.P.	Central	4x130 = 520				520		
23.	Uri-II NHPC, J&K	Central	4x60 = 240				240		
24.	Koteshwar THDC, Utt.	Central	4x100 = 400				400		
25.	Teesta Low Dam- IV NHPC, WB.	Central	4x40 = 160				160		
26.	Uhl-III HPJVNL, HP.	State	3x33.3 = 100				100		
27.	Pallivasal KSEB, Kerala	State	3x20 = 60				60		
28.	Bhawani Kattalai Barrage- II TNEB, TN.	State	2x15 = 30				30		
29.	Parbati St.-II NHPC, HP.	Central	4x200 = 800					800	

Sl. No.	Name of Project/Executing Agency/State	Sector	Rating Nox MW = MW	Year wise Capacity addition in MW during 11 th plan					Total
				2007-08	2008-09	2009-10	2010-11	2011-12	
30.	Rampur SJVNL, HP.	Central	6 x 68.67 = 412					412	
31.	Nimoo Bazgo NHPC, J&K	Central	3x15 = 45					45	
32.	Chutak NHPC, J&K	Central	4x11 =44					44	
33.	Loharinagpala NTPC, Uttranchal	Central	4x150 = 600					600	
34.	Tapovan Vishnugad NTPC, Uttranchal	Central	4x130 = 520					520	
35.	Subansiri Lower NHPC, Ar.Pr.	Central	8x250 = 2000					2000	
36.	Kameng NEEPCO, Ar.Pr.	Central	4x150 = 600					600	
37.	Sawara Kuddu PVC, H.P.	State	3x36.67 = 110					110	
38.	Lower Jurala APGENCO, A.P.	State	6x40 = 240					240	
39.	Pulichintala APGENCO, A.P.	State	4x30 =120					120	
40.	New Umtru MeSEB, Meghalaya	State	2x20 = 40					40	
41.	Karcham Wangtoo JPKHCL, HP.	Private	4x250 = 1000					1000	
42.	Sorang Sorang PC, H.P.	Private	2x50 = 100					100	
43.	Shrinagar GVKIND, Uttranchal	Private	4x82.5 = 330					330	
44.	Maheshwar SMHPCL, MP.	Private	10x40 = 400					400	
45.	Teesta- III Teesta URJA, Sikkim	Private	6x200 = 1200					1200	
Grand Total				2423	1097	1805	1741	8561	15627

* Already commissioned. Total capacity of 2712 MW has been commissioned upto 31.08.08

Hydro Electric Projects Critical for Commissioning During 11th Plan

Sl. No.	Project Name	Executing Agency	Installed Capacity (MW)
i)	Parvati Stage-II, H.P.	NHPC	800
ii)	Loharinagpala, Uttarakhand	NTPC	600
iii)	Tapovan Vishnugad, Uttarakhand	NTPC	520
iv)	Subansiri Lower, Ar. Pradesh	NHPC	2000
v)	Kameng, Ar. Pradesh	NEEPCO	600
vi)	Sawara Kudu, H. P.	PVC	110
vii)	Lower Jurala, A. P.	APGENCO	120
Total			4750

SHELF OF CANDIDATE HYDRO ELECTRIC PROJECTS IDENTIFIED

(As on 31.03.2007)

Sl.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Likely Benefit in 12th Plan	Year of Commissioning (Projected)	Category*
1	Bharmour	ROR	H.P.	IPP	45	45	2012-13	A
2	Bara Bhargal	ROR	H.P.	IPP	200	200	2014-15	B
3	Bajoli Holi	ROR	H.P.	IPP	180	180	2012-13	A
4	Chirgaon (Majhgaon)	ROR	H.P.	HPSEB	46	46	2012-13	A
5	Dhaura Sidh	ROR	H.P.	IPP	40	40	2012-13	A
6	Dhamvari Sunda	ROR	H.P.	HPSEB	70	70	2013-14	B1
7	Gharopa	ROR	H.P.	IPP	114	114	2016-17	C
8	Gondhala	ROR	H.P.	IPP	144	144	2015-16	C
9	Harsar	ROR	H.P.	IPP	60	60	2013-14	A
10	Jhangi Thopan	ROR	H.P.	IPP	480	480	2013-14	A
11	Kutehr	ROR	H.P.	IPP	260	260	2013-14	A
12	Khab	STO	H.P.	SJVNL	1020	1020	2016-17	C
13	Kashang-II	ROR	H.P.	HPSEB	60	60	2012-13	A
14	Khoksar	ROR	H.P.	IPP	90	90	2016-17	C
15	Luhri	ROR	H.P.	SJVNL	770	770	2014-15	A
16	Pudital Lassa	STO	H.P.	IPP	36	36	2012-13	A
17	Renuka dam	STO	H.P.	HPSEB	40	40	2016-17	B1
18	Sainj	ROR	H.P.	HPSEB	100	100	2012-13	A
19	Tidong-II	ROR	H.P.	IPP	70	70	2012-13	A
20	Thopan Powari	ROR	H.P.	IPP	480	480	2013-14	A
21	Yangthang Khab	STO	H.P.	IPP	261	261	2016-17	B
22	Kashang - I & III	ROR	H.P.	HPJVNL	195	195	2013-14	A
23	Shongtong Karcham	ROR	H.P.	HPSEB	402	402	2013-14	A
24	Baglihar-II	ROR	J & K	PDC	450	450	2012-13	A
25	Bursar	STO	J & K	NHPC	1500	1500	2016-17	B
26	Kiru	ROR	J & K	To be decided	600	600	2016-17	B1
27	Kirthai-I	ROR	J & K	PDC	240	240	2016-17	B
28	Kirthai-II	ROR	J & K	PDC	990	990	2016-17	B
29	Kishan Ganga	STO	J & K	NHPC	330	330	2016-17	A
30	Kawar	ROR	J & K	To be decided	520	520	2016-17	B1
31	Lower Kalnai	ROR	J & K	PDC	50	50	2013-14	B
32	New Ganderbal	ROR	J & K	PDC	90	90	2013-14	B
33	Parnai	ROR	J & K	PDC	37.5	37.5	2012-13	A
34	Pakhal Dul	STO	J & K	NHPC	1000	1000	2013-14	B1
35	Parkhachik Panikar	ROR	J & K	PDC	60	60	2013-14	B
36	Ratle	ROR	J & K	To be decided	690	690	2015-16	B1
37	Sonamarg	STO	J & K	PDC	165	165	2015-16	B
38	Sawalkot	ROR	J & K	PDC	1200	1200	2016-17	B1
39	Arkot Tiuni	ROR	Uttaranchal	UJVNL	70	70	2015-16	A
40	Alaknanda (Badrinath)	ROR	Uttaranchal	IPP	140	140	2013-14	A
41	Bogadiyar Sirkari Bhyal	ROR	Uttaranchal	IPP	170	170	2012-13	A
42	Mapang Bogudiyar	ROR	Uttaranchal	IPP	200	200	2012-13	A
43	Bokang Baling	ROR	Uttaranchal	THDC	330	330	2015-16	C

Sl.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Likely Benefit in 12th Plan	Year of Commissioning (Projected)	Category*
44	Bowala Nand Prayag	ROR	Uttaranchal	UJVNL	132	132	2013-14	A
45	Chhunger Chal	ROR	Uttaranchal	NHPC	240	240	2013-14	C
46	Deodi	ROR	Uttaranchal	IPP	60	60	2013-14	B
47	Devsari Dam	ROR	Uttaranchal	SJVNL	690	690	2016-17	A
48	Gohana Tal	STO	Uttaranchal	IPP	60	60	2013-14	B
49	Hanol Tiuni	ROR	Uttaranchal	IPP	42	42	2012-13	A
50	Jakhol Sankari	ROR	Uttaranchal	SJVNL	33	33	2012-13	A
51	Jelam Tamak	ROR	Uttaranchal	THDC	60	60	2012-13	A
52	Jadh Ganga	ROR	Uttaranchal	THDC	50	50	2014-15	C
53	Kishau Dam	STO	Uttaranchal	THDC	600	600	2014-15	C
54	Karmoli	ROR	Uttaranchal	THDC	140	140	2014-15	C
55	Karmoli Lumti Talli	ROR	Uttaranchal	NHPC	55	55	2012-13	C
56	Lakhwar	STO	Uttaranchal	NHPC	300	300	2012-13	A
57	Maleri Jhelam	ROR	Uttaranchal	THDC	55	55	2014-15	A
58	Mori Hanol	ROR	Uttaranchal	IPP	60	60	2012-13	A
59	Nand Prayag Lingasu	ROR	Uttaranchal	UJVNL	141	141	2013-14	A
60	Naitwar Mori (Dewra Mori)	ROR	Uttaranchal	SJVNL	33	33	2013-14	A
61	Pala Tiloth St-I	ROR	Uttaranchal	UJVNL	105	105	2013-14	B
62	Pala Maneri	ROR	Uttaranchal	UJVNL	480	480	2013-14	A
63	Rupsiyabagar Khasiyabara	ROR	Uttaranchal	NTPC	260	260	2013-14	A
64	Sela Urthing	ROR	Uttaranchal	UJVNL	230	230	2016-17	B
65	Sirkari Bhyal Rupsiabagar	ROR	Uttaranchal	UJVNL	210	210	2013-14	A
66	Singoli Bhatwari	ROR	Uttaranchal	IPP	60	60	2012-13	A
67	Tamak Lata	ROR	Uttaranchal	UJVNL	280	280	2014-15	A
68	Taluka Sankri	ROR	Uttaranchal	UJVNL	140	140	2015-16	A
69	Tuini Plasu	ROR	Uttaranchal	UJVNL	42	42	2014-15	A
70	Urthing Sobla	ROR	Uttaranchal	IPP	280	280	2016-17	B
71	Garba Tawa ghat	ROR	Uttaranchal	NHPC	630	630	2015-16	C
72	Dhauli Ganga Intermediate	ROR	Uttaranchal	NHPC	210	210	2013-14	A
73	Gauri Ganga St III-A	ROR	Uttaranchal	NHPC	120	120	2013-14	A
74	Shahpur Kandi	STO	Punjab	PSEB	168	168	2012-13	A
75	Bodhghat	STO	Chhattisgad	CSEB	500	500	2013-14	C
76	Matnar	ROR	Chhattisgad	CSEB	60	60	2013-14	B1
77	Dummugudem	STO	A..P.	APID	320	320	2015-16	A
78	Pollavaram MPP	STO	A..P.	APID	960	960	2014-15	A
79	Chinnar	ROR	Kerala	KSEB	28	28	2012-13	A
80	Pambar	ROR	Kerala	KSEB	40	40	2012-13	B
81	Achenkivil	STO	Kerala	KSEB	30	30	2012-13	A
82	Kundah PSS	PSS	Tamil Nadu	TNEB	500	500	2012-13	A
83	Gundia	ROR	Karnataka	KPCL	400	400	2012-13	A
84	Balimela DPH	STO	Orissa	IPP	60	60	2012-13	B
85	Sindol	STO	Orissa	OHPC	300	300	2016-17	B
86	Ramam St-I	ROR	W. B.	WBSEB	36	36	2012-13	A
87	Panan	ROR	Sikkim	IPP	280	280	2012-13	A
88	Dikchu	ROR	Sikkim	IPP	96	96	2012-13	A

Sl.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Likely Benefit in 12th Plan	Year of Commissioning (Projected)	Category*
89	Rolep	ROR	Sikkim	IPP	60	60	2012-13	A
90	Rangit-II	ROR	Sikkim	IPP	60	60	2012-13	A
91	Rangit-IV	ROR	Sikkim	IPP	120	120	2012-13	A
92	Lachen	ROR	Sikkim	NHPC	210	210	2014-15	A
93	Rangyong	ROR	Sikkim	IPP	80	80	2012-13	A
94	Rukel	ROR	Sikkim	IPP	33	33	2013-14	A
95	Lingza	ROR	Sikkim	IPP	120	120	2015-16	C
96	Rongnichu	STO	Sikkim	IPP	96	96	2013-14	A
97	Talem	ROR	Sikkim	IPP	75	75	2015-16	C
98	Teesta St.-I	ROR	Sikkim	IPP	280	280	2014-15	A
99	Teesta St.-II	ROR	Sikkim	IPP	480	480	2012-13	A
100	Teesta St.-IV	ROR	Sikkim	NHPC	495	495	2013-14	A
101	Teesta-VI	ROR	Sikkim	IPP	500	500	2013-14	A
102	Ranganadi-II	STO	Ar. P	NEEPCO	130	130	2013-14	B
103	Siang Middle (Siyom)	STO	Ar. P	IPP	1000	1000	2014-15	B1
104	Dibbin	ROR	Ar. P	To be decided	100	100	2012-13	A
105	Badao	ROR	Ar. P	To be decided	60	60	2012-13	A
106	Kapak Leyak	ROR	Ar. P	To be decided	160	160	2012-13	A
107	Talong	ROR	Ar. P	IPP	160	160	2012-13	A
108	Etalín	STO	Ar. P	NTPC	4000	4000	2016-17	A
109	Attunli	ROR	Ar. P	NTPC	500	500	2016-17	A
110	Naying	ROR	Ar. P	IPP	1000	1000	2016-17	C
111	Tato-II	ROR	Ar. P	IPP	700	700	2014-15	B
112	Hirong	ROR	Ar. P	IPP	500	500	2014-15	B
113	Demwe	STO	Ar. P	To be decided	3000	3000	2016-17	B
114	Hutong-II	ROR	Ar. P	IPP	1250	1250	2015-16	B
115	Kalai-I	ROR	Ar. P	IPP	1450	1450	2016-17	B
116	Siang Lower	STO	Ar. P	IPP	1600	1600	2016-17	B1
117	Kameng Dam	STO	Ar. P	IPP	600	600	2016-17	C
118	Kameng-I (Bhareli Lift Dam-I)	ROR	Ar. P	NEEPCO	1120	1120	2014-15	B
119	Kameng-II (Bhareli Lift Dam-II)	ROR	Ar. P	IPP	600	600	2015-16	B
120	Nyamjunchhu St-I	ROR	Ar. P	IPP	98	98	2012-13	A
121	Nyamjunchhu St-II	ROR	Ar. P	IPP	97	97	2012-13	A
122	Nyamjunchhu St-III	ROR	Ar. P	IPP	95	95	2012-13	A
123	Dibang (Joint venture)	STO	Ar. P	NHPC JV	3000	3000	2015-16	A
124	Tawang-II	STO	Ar. P	NHPC	750	750	2015-16	A
125	Tawang-I	STO	Ar. P	NHPC	750	750	2015-16	A
126	Lohit	STO	Ar. P	To be decided	3000	3000	2014-15	B1
127	Subansiri Upper	STO	Ar. P	NHPC	2000	2000	2016-17	B1
128	Subansiri Middle	STO	Ar. P	NHPC	1600	1600	2016-17	B1
129	Lower Kopili	ROR	Assam	AGENCO	150	150	2013-14	A
130	Upper Borpani	ROR	Assam	AGENCO	60	60	2013-14	A
131	Tipaimukh	STO	Manipur	NEEPCO	1500	1500	2015-16	A
132	Loktak d/s	ROR	Manipur	NHPC	66	66	2014-15	B
133	Bairabi	STO	Mizoram	PDD	80	80	2012-13	C

Sl.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Likely Benefit in 12th Plan	Year of Commissioning (Projected)	Category*
134	Turial	STO	Mizoram	NEEPCO	60	60	2012-13	C
135	Umiam Umtru-V	ROR	Meghalaya	MeSEB	36	36	2012-13	A
136	Ganol	ROR	Meghalaya	MeSEB	25	25	2012-13	A
137	Mawhu	ROR	Meghalaya	NEEPCO	120	120	2012-13	A
138	Nongkolait	ROR	Meghalaya	MeSEB	120	120	2013-14	B
139	Nongnaw	ROR	Meghalaya	MeSEB	50	50	2014-15	B
140	Rangmaw	ROR	Meghalaya	MeSEB	65	65	2014-15	B
141	Umangot	STO	Meghalaya	MeSEB	260	260	2016-17	B
142	Umduna	ROR	Meghalaya	MeSEB	57	57	2016-17	B
143	Myntdu Leshka-II	ROR	Meghalaya	MeSEB	60	60	2016-17	B
144	Selim	STO	Meghalaya	MeSEB	170	170	2016-17	B
145	Umangi Storage-I	STO	Meghalaya	MeSEB	54	54	2015-16	B
146	Mawblei	STO	Meghalaya	MeSEB	140	140	2016-17	C
						58573.50		

*** NOTES**

Category 'A'

- (i) Project under construction,
- (ii) Project already allotted by State Govt. to a developer and DPR ready or likely to be ready by March, 2009 and no litigation or inter-state aspects are involved.

Category 'B1'

- (i) Project for which DPR is likely to be ready by Sept' 2009, may involve problem/ issues of low magnitude that can be sorted out with some efforts
- (ii) Project declared as National Project as no funding problem is anticipated for such project. For such project also, DPR should be ready by Sept.'2009.

Category 'B'

Project involving issues / problems, with possibility of resolution as 50:50 in the time frame envisaged for commissioning of the project in the 12th Plan. DPR preparation in most cases in progress and likely to be completed after Sept.' 2009. Realization of benefits during 12th Plan is somewhat uncertain.

Category 'C'

Project either not allotted so far, facing problems such as litigation, local unrest, interstate problems, project area falling under wild life sanctuary, E&F problem or low priority by the State Govt.. Remote possibility

SHELF OF HYDRO PROJECTS IDENTIFIED FOR BENEFITS DURING 12th PLAN

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
1	Bajoli Holi	ROR	H.P.	IPP	180	180	2015-16	02/10	Allotted to GMR Energy Ltd.PIA signed on 15.02.08. Investigation under progress. Submission of DPR by Feb'10.Envn & forest clearance expected in Sept'2010.	B1
2	Chirgaon (Majhgaon)	ROR	H.P.	HPPCL	42	42	2013-14	Rev. DPR 02/09	Due to uncertainty of Dhamvari Sunda HEP, this project is being revised for 42MW.Revised DPR likely to be submitted by Feb'09.	B1
3	Dhaura Sidh	ROR	H.P.	SJVNL	40	40	2015-16		Allotted to SJVNL for implementation. MOU for implementation of this project likely to be signed with Govt. of Himachal Pradesh shortly.	B1
4	Kutehr	ROR	H.P.	IPP	260	260	2014-15	09/09	Allotted to JSW Energy Ltd N Delhi. Project Implementation Agreement(PIA) signed on 01.3.08.	B1
5	Luhri	ROR	H.P.	SJVNL	776	776	2016-17	DPR under revision	Revised DPR is expected to be submitted shortly. EIA/EMP studies are in progress and final report is expected by the end of August,08. Thereafter proposal for E&F clearance will be submitted. LOA for main civil and E&M packages is scheduled for Oct.,10.The commissioning of this project is scheduled for June,2010.	A
6	Renuka dam	STO	H.P.	HPPCL	40	40	2014-15	Revised DPR 09/08	Comments on hydrology are being attended to.Project being considered as National project and is to be funded by Central Govt./beneficiary States., Environmental & forest clearance awaited. Sharing of cost benefits to be decided.	B1
7	Sainj	ROR	H.P.	HPPCL	100	100	2013-14	Rev. DPR 12/08	DPR cleared by HPSEB, tender document under finalisation. Tie-up with ADB for funding. DPR returned by CEA for incomplete geological investigations.	A
8	Kashang - I	ROR	H.P.	HPPCL	130	130	2012-13	Ready	Under process of award. Tie-up with ADB for funding.Tender documents prepared and sent to ADB for vetting.Tender for E&M equipment is under preparation and shall be sent to ADB for vetting.Revised DPR of Kasang St-I submitted to CEA in May'08.	A
9	Kashang-II & III	ROR	H.P.	HPPCL	130	130	12th. Plan	Rev DPR 10/08	Tenders are under preparation. Tie-up with ADB for funding.Geological investigation under progress.DPR of integrated Kasang (243MW) returned in 1/08.	A
10	Kashang -IV	ROR	H.P.	HPPCL	48	48	12th. Plan	Rev DPR 10/09	To be taken up subsequently. Tie-up with ADB for funding.DPR of integrated Kasang (243MW) returned in 1/08.	B1
11	Shongtong Karcham	ROR	H.P.	HPPCL	402	402	2013-14	Rev DPR 12/08	Being executed by Kinner Kailash Power Corpn Ltd., Company being promoted by HPSEB. DPR returned in 12/07.Comments of CEA being attended to and revised DPR to be submitted by 12/08.	A

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
12	Tangnu Romai	ROR	H.P.	IPP	44	44	2012-13	DPR under revision	Slipping from 11th. Plan. Being developed by Tangnu Romai Power Generation Ltd. Tenders for award for various packages are under progress. Award likely to be placed by Mar'09. DPR under revision for 44MW.	A
13	Lambadug	ROR	H.P.	IPP	25	25	2012-13	Ready	Slipping from 11th. Plan. Being developed by Himachal Projects Consortium Ltd. MOEF clearance awaited. LOA for main work to be issued shortly.	A
14	Tidong-I	ROR	H.P.	IPP	100	100	2012-13	Ready	Allotted to Nuziveedu Seeds Ltd in Sept'. NIT issued. Award for various packages to be done by 10/08.	A
15	Chango Yangthang	ROR	H.P.	IPP	140	140	2015-16	01/10	Allotted to M/S Malana Power Co. Ltd. in Apr'08.	B1
16	Baglihar-II	ROR	J & K	PDC	450	450	2012-13	DPR under revision	Some work already taken up with stage-I, Work awarded, DPR returned on account of poor geology and the same is being revised.	A
17	Kiru	ROR	J & K	NHPC	600	600	2015-16	DPR under revision	DPR prepared by NHPC .J&K Govt. in principle ready to execute the project in JV with NHPC. DPR returned in 4/06	B1
18	Kawar	ROR	J & K	NHPC	520	520	2015-16	DPR under revision	DPR prepared by NHPC .J&K Govt. in principle ready to execute the project in JV with NHPC. DPR returned in 4/06.	B1
19	Kishan Ganga	ROR	J & K	NHPC	330	330	2015-16	Ready	CCEA clearance was earlier accorded in 7'07. Subsequently, revised cost estimates were cleared by PIB in July, 08. CCEA clearance expected soon. LOA for main civil works and E&M works is likely to be issued by Oct., 2008.	A
20	Pakal Dul	STO	J & K	NHPC	1000	1000	2015-16	Ready	Project is proposed to be implemented by State Govt. as joint venture with NHPC. Environment & forest clearance obtained. However the proposal regarding denotification of forest land comprising a part of KHANP for construction of the project has been pending with Hon'ble Supreme court.	B1
21	Ratle	ROR	J & K	To be decided	690	690	2015-16	DPR under revision	DPR prepared by NHPC was returned in 4/07 . Global bid has been invited.	B1
22	Kirthai-I	ROR	J & K	PDC	240	240	2015-16	Rev. DPR expected in 11/08	SPV is being formed. Cost updation to be done. To be developed through ADB funding in SS. DPR returned in 1/08.	B1
23	New Ganderbal	ROR	J & K	PDC	93	93	2015-16	Revised DPR expected in 11/08	Revised DPR under preparation. SPV is being formed. To be developed through ADB funding.	B1

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
24	Kotlibhel-St-1A	ROR	Uttarakhand	NHPC	195	195	2013-14	Ready	PIB done on 7.02.07. Forest clearance awaited. Environmental clearances available, however, forest clearance is expected by Nov., 2008. Meeting of FAC regarding forest clearance was held in April'08. CCEA for these projects is expected by Jan., 2009. LOA for main packages of civil & E&M works are likely to be issued by Feb., 2009. The projects is expected to be commissioned by 2013-14.	A
25	Kotlibhel-St-1B	ROR	Uttarakhand	NHPC	320	320	2013-14	Ready	PIB done on 7.02.07. Forest clearance awaited. Environmental clearances available, however, forest clearance is expected by Nov., 2008. Meeting of FAC regarding forest clearance was held in April'08. CCEA for these projects is expected by Jan., 2009. LOA for main packages of civil & E&M works are likely to be issued by Feb., 2009. The projects is expected to be commissioned by 2013-14.	A
26	Kotlibhel-St-II	ROR	Uttarakhand	NHPC	530	530	2013-14	Ready	PIB done on 15.5.07.Environmental clearance was obtained in Aug., 2007. Forest clearance is awaited and likely to be obtained by Dec., 2008. Proposal for forest clearance for the project is yet to be sent by State Govt. to MOEF. CCEA clearance is expected by Feb., 2009. Price bids invited. The project is scheduled to be commissioned by 2013-14.	A
27	Lata Tapovan	ROR	Uttarakhand	NTPC	171	171	2014-15	Ready	Land acquisition complete.All clearance obtained.Bids invited. LOA to be placed by April'09.Commissioning expected in 2014-15.	A
28	Vishnugad Pipalkoti	ROR	Uttarakhand	THDC	444	444	2013-14	Ready	PIB clearance on 26.2.07, CCEA approval expected by Sept'08.Envn. Clearance obtained.Forest clearance expected by Dec'08. Being Funded by world Bank. Work award by Mar'09.Tendering process is in progress.	A
29	Arkot Tuini	ROR	Uttarakhand	UJVNL	72	72	2014-15	1/09	DPR expected by Jan'09. Award for main civil works by May'10.	A
30	Alaknanda (Badrinath)	ROR	Uttarakhand	IPP	300	300	2014-15	Ready	Allotted to GMR Energy Ltd, DPR submitted to CEA in 9/07 is under examination.LOA for major work expected by 3/09.Envn.clearance obtained in Mar'08.After TEC forest clearance will be applied.Land case for 5ha.required for infrastructure facilities filed with forest department in june'08.Concurrence by CEA accorded.	A
31	Mapang Bogudiyar	ROR	Uttarakhand	IPP	200	200	2015-16	10/08	PFR ready, allotted to M/S GVK Ind.Ltd. under S&I., DPR under preparation.Submission of DPR expected by October'08. LOA expected by 2010. Commissioning in 2015-16.	A
32	Bogudiyar Sirkari	ROR	Uttarakhand	IPP	170	170	2015-16	10/08	PFR ready, allotted to GVK Ind. Ltd . under S&I., DPR under preparation.WAPCOS is consultant for feasibility study expected by Oct'08. LOA expected by 2010.	A

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
33	Bowala Nand Prayag	ROR	Uttarakhand	UJVNL	300	300	2014-15	Revised DPR by 10/08	DPR returned in 2/08.Revised DPR to be submitted by Oct.'08 . LOA expected by Dec'09.	A
34	Devsari Dam	ROR	Uttarakhand	SJVNL	252	252	2015-16	3/09	MOU signed, Under S&I.Feasibility report was submitted in Jan, 08. EIA/EMP studies are in progress and scheduled for completion by April, 2009. DPR is scheduled for submission by 15.3.09. Environmental and forest clearances are likely to be obtained by Sept,10. LOA for main civil and E&M packages are scheduled by January 2011. The project is scheduled for commissioning by Jan 2016 (2015-16).	A
35	Hanol Tuini	ROR	Uttarakhand	IPP	60	60	2013-14	Ready	Allotted to Sunflag Power Ltd.DPR under scrutiny by State Govt.Environmental clearance obtained.	A
36	Jhelam Tamak	ROR	Uttarakhand	THDC	126	126	2015-16	3/10	PFR Prepared, Under S&I.Feasibility report submitted to CEA on 19.1.08.EIA and EMP studies are under award process and scheduled for completion by Jan,10.The DPR is expected to be ready by March, 2010. Environmental and Forest clearances from MOEF are awaited.	B1
37	Lakhwar Vyasi	STO	Uttarakhand	NHPC	420	420	2015-16	Ready	TAC to be done by MOWR.Issue related to water sharing and cost benefits to be sorted out between the baneficiary states.Can be developed as a National Project.	B1
38	Nand Prayag Lingasu	ROR	Uttarakhand	UJVNL	100	100	2014-15	11/08	PFR Prepared, DPR likely by Nov'08..	B1
39	Naitwar Mori (Dewra Mori)	ROR	Uttarakhand	SJVNL	56	56	2013-14	8/08	PFR Prepared, Under S&I.Feasibility report of this project was submitted in March, 08 and preparation of DPR by WAPCOS is in advanced stage and likely to be submitted by 31.8.08. EIA/EMP studies for which HNB Garhwal University is consultant, are scheduled for completion by August,08. Environmental and forest clearances are expected by Sept.,09. LOA for main civil and E&M packages are expected by Jan,10. The project is scheduled for commissioning in June,2013.	A
40	Pala Maneri	ROR	Uttarakhand	UJVNL	480	480	2013-14	Ready	Concurrence given on 23.2.07. Major civil works to be awarded by Feb'09.	A
41	Bhaironghati	ROR	Uttarakhand	UJVNL	381	381	2015-16	DPR returned. Likely submission 10/09	DPR submitted to CEA in Jan'08 & was returned in 2/08.Revised DPR likely to be submitted in Oct'09.S&I stopped due to local problem.	B1

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
42	Rupsiyabagar Khasiyabara	ROR	Uttarakhand	NTPC	260	260	2014-15	Ready	DPR submitted to CEA in 10'07 & is under examination..Land acquisition started.Tender documents are ready. LOA for main civil works and E&M equipment are scheduled by Aug., 2009.Environment & forest clearance from MOEF are awaited. Land acquisition has been commenced.The project is expected to be commissioned by Jan., 2015.	A
43	Singoli Bhatwari	ROR	Uttarakhand	IPP	99	99	2012-13	Ready	Alloted to L&T, DPR cleared by CEA.	A
44	Tamak Lata	ROR	Uttarakhand	UJVNL	280	280	2015-16	12/08	PFR Prepared. S&I completed, DPR under preparation, expected by Dec'08.	A
45	Tuini Plasu	ROR	Uttarakhand	UJVNL	42	42	2014-15	DPR returned/ Under revision	Revised DPR expected by Jan'09.	A
46	Kishau Dam	STO	Uttarakhand	THDC	600	600	2016-17	DPR returned/ Under revision	DPR Returned, involves inter state aspect, DPR to be updated, Sharing of cost benefits to be sorted out. National Project. MOU with Govt. of Uttarakhand is yet to be signed. The MOU signing would be done after concurrence of Govt. of Himachal Pradesh on Interstate aspects is resolved and is expected to be signed by Sept.,08.	B1
47	Tehri St-II PSS	PSS	Uttarakhand	THDC	1000	1000	2013-14	Ready	Slipping from 11th. Plan. Essential works of dam,intake,HRTs,Transformer Hall and various adits already completed with Tehri St-I. The award of EPC contract for construction and commissioning is expected by Oct.'08.	A
48	Shahpur Kandi	STO	Punjab	PSEB	168	168	2014-15	Ready	To be executed jointly by PSEB (E&M Part) & Irr. Deptt.(Dam & Civil works).Invitation of bid after tie up of loan from PFC/REC.Out of 3185.44 acres required for the project already 3144.38 acres land acquisition complete. Proposed to be developed as a National Project.	B1
49	UBDC-III	ROR	Punjab	IPP	75	75	2012-13	Ready	Slipping from 11th. Plan. DPR approved.Revalidation of environment clearance obtained on 5.7.07.Forest clearance to be obtained.	A
50	Hosangabad	ROR	MP	NHDC	60	60	2013-14	Under finalisation	Draft DPR submitted to NVDA for firming up of cost estimates for item 'B-land and 'X-environment and ecology'.After confirmation of cost under these two heads, DPRs shall be finalized within a month. R&R issue involved. Commissioning during 12th plan.	B1
51	Handia	ROR	MP	NHDC	51	51	2013-14	Under finalisation	Draft DPR submitted to NVDA for firming up of cost estimates for item 'B-land and 'X-environment and ecology'.After confirmation of cost under these two heads, DPRs shall be finalized within a month. R&R issue involved. Commng during 12th plan.	B1

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
52	Baurus	ROR	MP	NHDC	55	55	2013-14	Under finalisation	Draft DPR submitted to NVDA for firming up of cost estimates for item 'B-land and 'X-environment and ecology'.After confirmation of cost under these two heads, DPRs shall be finalized within a month. R&R issue involved. Commng during 12th plan.	B1
53	Dummagudem	STO	A..P.	APID	320	320	2013-14	DPR returned/ Under revision	DPR returned in 3'06 for modification, PH portion is to be transferred to APGENCO.	B1
54	Pollavaram MPP	STO	A..P.	APID	960	960	2014-15	Ready	TAC to be done by MOWR, PH portion is to be transferred to APGENCO	B1
55	Singareddy	STO	A..P.	APID	280	280	2012-13	12/08	DPR under preparation.	B1
56	Achenkovil	STO	Kerala	KSEB	30	30	2014-15	Ready	DPR approved by state. Works to be awarded by July'10.	A
57	Pambar	ROR	Kerala	KSEB	40	40	2014-15	Ready	DPR submitted to State Govt.for approval.Problem of forest clearance as the power house falls under reserved forest.	B1
58	Vythiri	ROR	Kerala	KSEB	60	60	2014-15	05/09	Envn.and forest clearance expected by Sept'10 & June'10 respectively.	B1
59	Athirapally	ROR	Kerala	KSEB	163	163	2012-13	Ready	Works awarded earlier to consortium of M/S HCC and M/S BHEL in May'05 was cancelled in Sept'07.E & F clearance obtained. Retendering done on 8.10.07, however Hon'ble High Court quashed re tendering on 1.1.08.	B1
60	Mankulam	ROR	Kerala	KSEB	40	40	2012-13	Ready	Award of Civil/HM/E&M works likely by Sept'08.DPR approved by State Govt.Forest clearance awaited.	A
61	Thottiar	ROR	Kerala	KSEB	40	40	2012-13	Ready	Civil/HM/E&M awarded on 13.06.08.	A
62	Kundah PSS	PSS	Tamil Nadu	TNEB	500	500	2012-13	Ready	DPR returned in 12/07 due to Inter State issues involved.	B1
63	Gundia-I	ROR	Karnataka	KPCL	200	200	2013-14	Ready	Accorded concurrence by CEA on 25.4.08.Tender & bid documents under preparation.	A
64	Gundia-II	ROR	Karnataka	KPCL	200	200	2014-15	7/09	DPR under preparation, expected by july'09.	A
65	Ramam St-I	ROR	W. B.	WBSEDCL	36	36	2015-16	DPR returned/ Under revision	DPR to be revised .WBSE Distribution co Ltd (WBSEDCL) is processing for implementation.Due to land slide re-routing of project road being done. Agreement on inter state aspect is awaited.	A
66	Ramam St-III	ROR	W. B.	NTPC	120	120	2014-15	Ready	CEA clearance accorded in 9/06. MOEF clearance obtained on conditional basis in 8'07.Forest clearance awaited. Tender documents have been prepared and bids are scheduled to be opened on 31.7.2008 and award of works both for civil and E&M packages is expected by April, 2009. The project is expected to be commissioned by May, 2014 (2014-15).	A
67	Ramman Ultimate (IV)	ROR	W. B.	WBSEDCL	30	30	2015-16	05/09	DPR under preparation by WAPCOS and likely to be ready by May'09.	B1

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
68	Panan	ROR	Sikkim	IPP	280	280	2013-14	DPR returned/ Under revision 09/08	Allotted to Nagarjuna Holdings Pvt Ltd.and is being executed by Himagiri Hydro Energy (P) ltd. DPR returned by CEA 31.10.07.Submission of revised DPR expected in Sept'08.Envn. & Forest clearance obtained.Bids invited in July'08.	A
69	Dikchu	ROR	Sikkim	IPP	96	96	2012-13	Ready	Allotted to Sneha Kinetic power projects ltd, Hyderabad. DPR submitted to Govt. of Sikkim's for concurrence.Envn. Clearance received in April'08.Forest clearanne under process.Land acquisition process already started.Preparation of bid documents is in progress and invitation of bid expected by Sept.'08.	A
70	Rangit-II	ROR	Sikkim	IPP	66	66	2013-14	Ready	Allotted to Gammon India ltd. DPR submitted to State Govt. for concurrence in Feb'08.Envn. Clearance obtained in June'08.Forest clearance expected in Dec'08.Commencement of Acquisition of land started in Apr'08. Invitation of bids expected in Nov.'08.	A
71	Rangit-IV	ROR	Sikkim	IPP	120	120	2012-13	Ready	Allotted to Jal Power corporation ltd.Land acquisition process completed in June'08. Work order for all civil work awarded .Bids for E&M work received and are under evaluation. E & F clearance obtained.Co mmissioning oscheduled for June'2012.	A
72	Teesta St.-II	ROR	Sikkim	IPP	480	480	2015-16	Ready	Allotted to Him Urja infra pvt ltd N Delhi,DPR submitted to State Govt. in Feb'08.Opposition by locals.	B1
73	Teesta St.-IV	ROR	Sikkim	NHPC	520	520	2015-16	DPR returned/ Under revision	MOU signed on 1.3.06. DPR for this project was submitted in March,08.DPR has since been returned by CEA and some further investigations are required for firming up the installed capacity but due to agitation by Lepcha community work is held up. EIA/EMP studies were started in Jan,06 and are likely to be completed /finalized by Aug.08. Environment and forest clearances by MOEF is expected by Feb.,09. LOA for main civil and E&M packages are scheduled for placement by June,09. The project is scheduled to be commissioned by June 2015(2015-16).	B1
74	Teesta-VI	ROR	Sikkim	IPP	500	500	2012-13	Ready	Allotted to LANCO Energy pvt ltd, N Delhi. Concurrence given by CEA in Dec'06. Forest clearance accorded in May'08.Envn. Clearance from MOEF obtained in Sept'06.Land acquisition is in progress.Award for civil and electro mechanical works awarded.	A
75	Jorethang Loop	ROR	Sikkim	IPP	96	96	2014-15	Ready	Allotted to DANS Energy pvt. Ltd., N.Delhi.DPR cleared by State Govt.Land acquisition completed.	A

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
76	Thangchi	ROR	Sikkim	IPP	99	99	2014-15	11/08	Allotted to Lachung Power pvt Ltd. MOEF clearance awaited. Draft DPR ready. S&I could not be done due to local problem. Presently problem resolved and power house relocated. EIA & EMP studies being conducted by WAPCOS.	B1
77	Bhimkyong	ROR	Sikkim	IPP	99	99	2014-15	11/08	Allotted to Teesta Power Pvt Ltd. MOEF clearance expected in July'09. Submission of DPR in Nov.08. Commencement of acquisition of land January'09. Invitation of bids in July'09. Commissioning in 2014-15.	B1
78	Bop	ROR	Sikkim	IPP	99	99	2014-15	11/08	Allotted to Chungthang Power pvt Ltd. MOEF clearance awaited. DPR to be submitted by Nov.'08. Env. Clearance from MOEF expected by July'09.	B1
79	Pare	ROR	Ar. P	NEEPCO	110	110	2012-13	Ready	In principle forest clearance was accorded by MOEF in Jan.,08. PIB clearance was accorded on 28.1.08. Tenders for civil and E&M packages have been floated and the works are expected to be awarded by first and third week of Nov.,08 respectively. CCEA approval is being issued. The commissioning of the project is scheduled 44 months from the date of CCEA clearance.	A
80	Siang Lower	STO	Ar. P	IPP	2400	600	2016-17 (2 units)	Ready	Allotted to JP Associates Ltd. DPR submitted in June'08. Env. & Forest clearance awaited. Preparation of tender specification and bid documents expected by Mar'09.	B1
81	Siang Middle (Siyom)	STO	Ar. P	IPP	1000	1000	2015-16	Ready (Revised DPR by 12/08)	Allotted to Reliance Energy. Environmental clearance obtained in March'05. Forest clearance awaited. DPR returned earlier by CEA is under revision.	B1
82	Dibbin	ROR	Ar. P	IPP	125	125	2013-14	Ready	Allotted to KSK Electricity financing India Pvt Ltd. DPR prepared by NEEPCO. Revised DPR submitted to CEA. Environmental clearance awaited.	A
83	Talong	ROR	Ar. P	IPP	160	160	2014-15	Rev. DPR by 09/08	Allotted to GMR Energy Ltd. DPR prepared by NEEPCO was returned by CEA in 6/06. DPR is being prepared and updated based on the details collected from NEEPCO and expected to be submitted in Sept'08. Env. & forest clearance awaited.	A
84	Nyamjunchhu St-I	ROR	Ar. P	IPP	98	98	2014-15	12/08	Allotted to Bhilwara Energy Ltd in Oct'06. Env. & Forest clearance expected in 12/09. Commencement of land acquisition expected from 06/10. Invitation of bids expected in 04/10. Commissioning in 08/2014.	A
85	Nyamjunchhu St-II	ROR	Ar. P	IPP	97	97	2014-15	12/08	Allotted to Bhilwara Energy Ltd in Oct'06. Env. & Forest clearance expected in 12/09. Commencement of land acquisition expected from 06/10. Invitation of bids expected in 04/10. Commissioning in 08/2014.	A

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
86	Nyamjunchhu St-III	ROR	Ar. P	IPP	95	95	2014-15	12/08	Allotted to Bhilwara Energy ltd in Oct'06.Envn.& Forest clearance expected in 12/09. Commencement of land acquisition expected from 06/10.Invitation of bids expected in 04/10. Commissioning in 08/2014.	A
87	Tawang-I	ROR	Ar. P	NHPC	750	750	2016-17	06/09	MOU signed in Sept'06, Under S&I.EIA/EMP studies have been awarded in June,07 and is expected be completed by June,09.LOA for main civil and E&M packages is scheduled to be awarded by Sept.,10. The project is scheduled to be commissioned by the end of 2016-17.	B1
88	Tawang-II	ROR	Ar. P	NHPC	750	750	2015-16	06/09	MOU signed in Sept'06, Under S&I.EIA/EMP studies have been awarded in June,07 and is expected to be completed by Sept.,08.DPR is expected to be submitted by Dec.,08. Environment and forest clearances are expected by March,09. LOA for main civil and E&M packages is scheduled to be awarded byMarch,10. The project is scheduled to be commissioned in 2015-16.	A
89	Tato-II	ROR	Ar. P	IPP	700	700	2015-16	01/09	PFR Prepared, allotted to Reliance Energy for Implementation. M/s SNC Lavline appointed as consultants. Financial closure expected by 3'09.	A
90	Hirong	ROR	Ar. P	IPP	500	500	2015-16	03/09	Allotted to Jaiprakash Power ltd. for Implementation, Forest and environment clearance awaited.DPR expected to be submitted in Mar'09..	B1
91	Demwe Lower	ROR	Ar. P	IPP	1640	1640	2016-17	submitted in 09/08	State Govt wants ROR instead of storage. Alloted to Athena Energy ventures Pvt Ltd. DPR submitted in Sept'08.	B1
92	DemweUpper	ROR	Ar. P	IPP	1640	1640	2016-17	12/08	PFR Prepared, state Govt wants ROR instead of storage. Alloted to Athena Energy ventures pvt ltd.S&I in advanced stage .	B1
93	Kameng Dam	STO	Ar. P	IPP	480	480	2016-17	3/10	Allotted to KSK Electricity financing India Pvt ltd. DPR by NEEPCO. Due to shifting of dam, FRL went down by 15M reducing I.C.to 480MW. S&I in progress.	B1
94	Khuitam	ROR	Ar. P	IPP	60	60	2014-15	01/09	Allotted to Adhishankar Power Pvt. Ltd.PFR for revised I.C.of 60MW submitted to State Govt.	B1
95	Turu	ROR	Ar. P	IPP	90	90	2015-16	12/08	Allotted to ECI Engineering & Construction Company.PFR submitted. S&I in progress.	B1
96	Gongri	ROR	Ar. P	IPP	90	90	2014-15	12/08	Allotted to M/s Patel Engineering Ltd.DPR under preparation.	B1
97	Saskang Rong	ROR	Ar. P	IPP	30	30	2014-15	12/08	Allotted to M/s Patel Engineering Ltd.DPR under preparation.	B1
98	Hirit	ROR	Ar. P	IPP	28	28	2013-14	09/09	Allotted to M./s Velcon Engineering Ltd. MOA signed with the State Government in June,2007.DPR under preparation.Likely date of submission of DPR 09/09.Envn. & Forest clearance expected in 07/09. Commencement of land acquisition to start in 10/09.	A

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
99	Dinchong	ROR	Ar. P	IPP	90	90	2015-16	03/10	Allotted to KSK Energy Venture Ltd. Reconnaissance study being carried out by a Canadian Agency. G&D sites are being established..	B1
100	Nafra	ROR	Ar. P	IPP	96	96	2013-14	11/08	Allotted to M/s SEW Energy and M/s SMEC India Ltd. are consultants. M/s Caden Surveys Pvt. Ltd. Are surveyours. Detailed topographical survey of reservoir and project area have been completed. DPR expected to be submitted by Nov.08.	B1
101	Pema Shelphu(Barpu)	ROR	Ar. P	IPP	97.5	97.5	2013-14	07/09	Alloted to M/s Raajratna Energy Holdings Pvt. Ltd. MOA with State Govt.signed on 27.12.2007.IC revised from 70MW to 97.5MW.For obtaining MoEF clearance for S&I for preparation of DPR draft PFR are being reviewed.Likely date of submission of DPR is 07/09.Envn.& Forest clearance expected by 12/09.Commencement of land acquisition to start in 08/09.Likely commissioning is 2013-14.	B1
102	Kangtanshiri	ROR	Ar. P	IPP	60	60	2013-14	07/09	Allotted to M/s Raajratna Energy Holdings Pvt. Ltd. MOA with State Govt.signed on 27.12.2007.IC revised from 35MW to 60MW.For obtaining MoEF clearance for S&I for preparation of DPR draft PFR are being reviewed.Likely date of submission of DPR is 07/09.Envn.& Forest clearance expected by 12/09.Commencement of land acquisition to start in 08/09.Likely commissioning is 2013-14.	B1
103	Nyukcha Rong Chhu	ROR	Ar. P	IPP	96	96	2015-16	8/09	Allotted to M/S SEW Energy in Sept'07.	B1
104	Mago Chhu	ROR	Ar. P	IPP	96	96	2015-16	8/09	Allotted to M/S SEW Energy in Sept'07.	B1
105	Lower Kopili	ROR	Assam	Assam GENCO	150	150	2014-15	Revised DPR by 10/08	Project to be executed by Assam GENCO. DPR submitted by Assam GENCO to CEA was returned for updating of hydrology.Submission of revised DPR expected in Oct'08.Envn & Forest clearance expected by April'09. Commencement of acquisition of land to start Sept'08.	A
106	Tipaimukh	STO	Manipur	NEEPCO	1500	1500	2016-17	Ready	TEC by CEA on 02.07.03.CCEA clearance awaited. PIL has been filed for which public hearing is in progress hearing planned during Mar'08.Updation of EIA and EMP report is under progress.CCEA approval expected by Dec.,08. The commissioning of the projects is scheduled in 87 months after CCEA clearance i.e. by Feb., 2017.	B1

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
107	Loktak D/S	ROR	Manipur	NHPC	66	66	2016-17	Ready	PIB clearance was obtained in Nov., 2006. EIA/ EMP studies were awarded in April, 2008 and likely to be completed by Aug., 2009. This project is to be developed by a Joint Venture Company of Govt. of Manipur and NHPC. An MoU in this regard was signed on 14.9.2007. Environment & Forest clearances are likely to be available by Dec., 2009. The CCEA clearance is expected by Feb., 2010 and LOA for main civil & E&M works is scheduled by April, 2010. The project is scheduled to be commissioned by 2016-17.	B1
108	Umangi -I	STO	Meghalaya	MeSEB	54	54	2015-16		PFR Prepared, under S&I	B1
109	Kynshi-I	STO	Meghalaya	IPP	450	450	2015-16		Project to be developed as JV between GoMe & Athena Projects Pvt. Ltd. MOA signed in Jan'08. Facing problem in getting data from Brahmaputra Board.	B1
						30919.50				

SUMMARY OF CANDIDATE HYDRO PROJECTS IDENTIFIED FOR COMMISSIONING DURING 12TH PLAN

Sl. No.	Status of Scheme	No. of Schemes	Proposed Capacity(MW)
1	Under construction	2	620
2	Sanctioned but construction yet to start	4	1661
3	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	21	5941
4	DPR Under examination		
	a) By CEA	4	1115
	b) By State Govts.	5	742
5	DPRs Ready	3	1880
6	DPRs Returned by CEA for revision/ Re-submission	25	7964
7	DPR under preparation		
	a) Schemes for which DPR expected to be submitted by March'09	25	8343
	b) Schemes for which DPR expected to be submitted during 2009-10	20	2654
	Total	109	30920

**State Wise Status of Candidate H. E. Projects Identified for Benefits
During 12th Plan**

1) Himachal Pradesh

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	-	-	-	-	-	-	-	-
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	-	-	-	-	2	125	2	125
4.	DPR Under Examination	-	-	1	130	-	-	1	130
5.	DPRs formulated	-	-	-	-	-	-	-	-
6.	DPRs Returned by CEA for revision/ Re-submission	1	776	6	762	1	44	8	1582
7	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	-	-	-	-	-	-	-	-
b)	Schemes for which DPR expected to be submitted beyond March'09	1	40	-	-	3	580	4	620
	Total	2	816	7	892	6	749	15	2457

2) Jammu & Kashmir

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No	MW	No	MW	No	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	1	330	-	-	-	-	1	330
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	1	1000	-	-	-	-	1	1000
4.	DPR Under examination								
5.	DPRs formulated	-	-	-	-	-	-	-	-
6.	DPRs Returned by CEA for revision/ Re-submission	2	1120	4	1473	-	-	6	2593
7	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	-	-	-	-	-	-	-	-
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	-	-	-	-	-	-
	Total	4	2450	4	1473	-	-	8	3923

3) Uttarakhand

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	1	1000	-	-	-	-	1	1000
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	5	1660	1	480	2	399	8	2539
4.	DPR Under examination	1	260	-	-	1	60	2	320
5.	DPRs formulated	1	420	-	-	-	-	1	420
6.	DPRs Returned by CEA for revision/ Re-submission	1	600	3	723	-	-	4	1323
7	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	2	308	3	452	2	370	7	1130
b)	Schemes for which DPR expected to be submitted beyond March'09	1	126	-	-	-	-	1	126
	Total	12	4374	7	1655	5	829	24	6858

4) Punjab

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	-	-	1	168	-	-	1	168
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	-	-	-	-	1	75	1	75
4.	DPR Under examination	-	-	-	-	-	-	-	-
5.	DPRs formulated	-	-	-	-	-	-	-	-
6.	DPRs Returned by CEA for revision/ Re-submission	-	-	-	-	-	-	-	-
7	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	-	-	-	-	-	-	-	-
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	-	-	-	-	-	-
	Total	--	-	1	168	1	75	2	243

5) Madhya Pradesh

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	-	-	-	-	-	-	-	-
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	-	-	-	-	-	-	-	-
4.	DPR Under examination	-	-	-	-	-	-	-	-
5.	DPRs formulated	-	-	-	-	-	-	-	-
6.	DPRs Returned by CEA for revision/ Re-submission	-	-	-	-	-	-	-	-
7.	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	3	166	-	-	-	-	3	166
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	-	-	-	-	-	-
	Total	3	166	-	-	-	-	3	166

6) Andhra Pradesh

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	-	-	-	-	-	-	-	-
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	-	-	-	-	-	-	-	-
4.	DPR Under examination	-	-	-	-	-	-	-	-
5.	DPRs formulated	-	-	1	960	-	-	1	960
6.	DPRs Returned by CEA for revision/ Re-submission	-	-	1	320	-	-	1	320
7.	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	-	-	1	280	-	-	1	280
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	-	-	-	-	-	-
	Total	-	-	3	1560	-	-	3	1560

7) Kerala

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	-	-	1	163	-	-	1	163
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	-	-	3	110	-	-	3	110
4.	DPR Under examination	-	-	1	40	-	-	1	40
5.	DPRs formulated	-	-	-	-	-	-	-	-
6.	DPRs Returned by CEA for revision/ Re-submission	-	-	-	-	-	-	-	-
7.	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	-	-	1	60	-	-	1	60
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	-	-	-	-	-	-
	Total	-	-	6	373	-	-	6	373

8) Karnataka

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	-	-	-	-	-	-	-	-
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	-	-	1	200	-	-	1	200
4.	DPR Under examination	-	-	-	-	-	-	-	-
5.	DPRs formulated	-	-	-	-	-	-	-	-
6.	DPRs Returned by CEA for revision/ Re-submission	-	-	-	-	-	-	-	-
7.	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	-	-	-	-	-	-	-	-
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	1	200	-	-	1	200
	Total	-	-	2	400	-	-	2	400

9) West Bengal

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	-	-	-	-	-	-	-	-
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	1	120	-	-	-	-	1	120
4.	DPR Under examination	-	-	-	-	-	-	-	-
5.	DPRs formulated	-	-	-	-	-	-	-	-
6.	DPRs Returned by CEA for revision/ Re-submission	-	-	1	36	-	-	1	36
7.	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	-	-	-	-	-	-	-	-
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	1	30	-	-	1	30
	Total	1	120	2	66	-	-	3	186

10) Sikkim

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	2	620	2	620
2.	Sanctioned but construction yet to start	-	-	-	-	-	-	-	-
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	-	-	-	-	1	96	1	96
4.	DPR Under examination	-	-	-	-	3	642	3	642
5.	DPRs formulated	-	-	-	-	-	-	-	-
6.	DPRs Returned by CEA for revision/ Re-submission	1	520	-	-	1	280	2	800
7.	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	-	-	-	-	3	297	3	297
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	-	-	-	-	-	-
	Total	1	520	-	-	10	1935	11	2455

11) Arunachal Pradesh

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	-	-	-	-	-	-	-	-
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	1	110	-	-	-	-	1	110
4.	DPR Under examination	-	-	-	-	2	725	2	725
5.	DPRs formulated	-	-	-	-	-	-	-	-
6.	DPRs Returned by CEA for revision/ Re-submission	-	-	-	-	2	1160	2	1160
7.	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	2	1500	-	-	14	5328	16	6828
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	-	-	5	755.5	5	755.5
	Total	3	1610	-	-	23	7968.5	26	9578.5

12) Assam

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	-	-	-	-	-	-	-	-
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	-	-	-	-	-	-	-	-
4.	DPR Under examination								
5.	DPRs formulated								
6.	DPRs Returned by CEA for revision/ Re-submission	-	-	1	150	-	-	1	150
7.	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	-	-	-	-	-	-	-	-
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	-	-	-	-	-	-
	Total	-	-	1	150	-	-	1	150

13) Manipur

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	-	-	-	-	-	-	-	-
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	2	1566	-	-	-	-	2	1566
4.	DPR Under examination	-	-	-	-	-	-	-	-
5.	DPRs formulated	-	-	-	-	-	-	-	-
6.	DPRs Returned by CEA for revision/ Re-submission	-	-	-	-	-	-	-	-
7.	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	-	-	-	-	-	-	-	-
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	-	-	-	-	-	-
	Total	2	1566	-	-	-	-	2	1566

14) Tamil Nadu

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	-	-	-	-	-	-	-	-
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	-	-	-	-	-	-	-	-
4.	DPR Under examination	-	-	-	-	-	-	-	-
5.	DPRs formulated	-	-	1	500	-	-	1	500
6.	DPRs Returned by CEA for revision/ Re-submission	-	-	-	-	-	-	-	-
7.	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	-	-	-	-	-	-	-	-
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	-	-	-	-	-	-
	Total	-	-	1	500	-	-	1	500

15) Meghalaya

Sl. No.	Status of Scheme	Central Sector		State sector/ unallocated		Private sector		Total	
		No	MW	No.	MW	No.	MW	No.	MW
1.	Under construction	-	-	-	-	-	-	-	-
2.	Sanctioned but construction yet to start	-	-	-	-	-	-	-	-
3.	Concurrence by CEA/ Clearance by State accorded but awaiting investment approval	-	-	-	-	-	-	-	-
4.	DPR Under examination	-	-	-	-	-	-	-	-
5.	DPRs formulated	-	-	-	-	-	-	-	-
6.	DPRs Returned by CEA for revision/ Re-submission	-	-	-	-	-	-	-	-
7.	DPR under preparation								
a)	Schemes for which DPR expected to be submitted by March'09	-	-	-	-	-	-	-	-
b)	Schemes for which DPR expected to be submitted beyond March'09	-	-	1	54	1	450	2	504
	Total	-	-	1	54	1	450	2	504

HYDRO PROJECTS IDENTIFIED FOR BENEFITS DURING 12th PLAN
Under Construction

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
1	Rangit-IV	ROR	Sikkim	IPP	120	120	2012-13	Ready	Allotted to Jal Power Corporation Ltd.Land acquisition process completed in June'08. Work order for all civil work placed .Bids for E&M work received and are under evaluation. E & F clearance obtained.Commissioning scheduled for June'2012.	A
2	Teesta-VI	ROR	Sikkim	IPP	500	500	2012-13	Ready	Allotted to LANCO Energy Pvt Ltd, N Delhi. Concurrence given by CEA in Dec'06. Forest clearance accorded in May'08.Envn. clearance from MOEF obtained in Sept'06.Land acquisition is in progress.Work order for civil and electro mechanical works placed.	A
Total						620				

HYDRO PROJECTS IDENTIFIED FOR BENEFITS DURING 12th PLAN

Sanctioned Schemes

Sl.No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
1	Kishan Ganga	ROR	J & K	NHPC	330	330	2015-16	Ready	CCEA clearance was earlier accorded in 7'07.Subsequently, revised cost estimates were cleared by PIB in July,08.CCEA clearance expected soon. LOA for main civil works and E&M works is likely to be issued by Oct., 2008.	A
2	Tehri St-II PSS	PSS	Uttarakhand	THDC	1000	1000	2013-14	Ready	Slipping from 11th. Plan. Essential works of dam,intake,HRTs,Transformer Hall and various adits already completed with Tehri St-I. The award of EPC contract for construction and commissioning is expected by Oct.'08.	A
3	Shahpur Kandi	STO	Punjab	PSEB	168	168	2014-15	Ready	To be executed jointly by PSEB (E&M Part) & Irrigation Deptt.(Dam & Civil works).Invitation of bid after tie up of loan from PFC/REC.Out of 3185.44 acres land required for the project already 3144.38 acres land acquisition complete. Proposed to be developed as a national project.	B1
4	Athirapally		Kerala	KSEB	163	163	2012-13	Ready	Works awarded earlier to consortium of M/S HCC and M/S BHEL in May'05 and was cancelled in Sept'07.Environment & Forest clearance obtained. Retendering done on 8.10.07, however Hon'ble High Court quashed retendering on 1.1.08.	B1
					Total	1661				

HYDRO PROJECTS IDENTIFIED FOR BENEFITS DURING 12th PLAN

CEA Concurrence/State Clearance Accorded

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
1	Pakal Dul	STO	J & K	NHPC	1000	1000	2015-16	Ready	Project is proposed to be implemented by State Govt. as joint venture with NHPC. Environment & forest clearance obtained. However the proposal regarding denotification of forest land comprising a part of KHANP for construction of the project has been pending with the Supreme Court.	B1
2	Lambadug	ROR	H.P.	IPP	25	25	2012-13	Ready	Slipping from 11th. Plan. Being developed by Himachal Projects Consortium Ltd. MOEF clearance awaited. LOA for main work to be issued shortly.	A
3	Tidong-I	ROR	H.P.	IPP	100	100	2012-13	Ready	Allotted to Nuziveedu Seeds Ltd in Sept'.NIT issued. Award for various packages to be done by 10/08.	A
4	Kotlibhel-St-1A	ROR	Uttarakhand	NHPC	195	195	2013-14	Ready	PIB done on 7.02.07. Forest clearance awaited. Environmental clearances available, however, forest clearance is expected by Nov., 2008. Meeting of FAC regarding forest clearance was held in April'08. CCEA for these projects is expected by Jan., 2009. LOA for main packages of civil & E&M works are likely to be issued by Feb., 2009. The projects is expected to be commissioned by 2013-14.	A
5	Kotlibhel-St-1B	ROR	Uttarakhand	NHPC	320	320	2013-14	Ready	PIB done on 7.02.07. Forest clearance awaited. Environmental clearances available, however, forest clearance is expected by Nov., 2008. Meeting of FAC regarding forest clearance was held in April'08. CCEA for these projects is expected by Jan., 2009. LOA for main packages of civil & E&M works are likely to be issued by Feb., 2009. The projects is expected to be commissioned by 2013-14.	A
6	Kotlibhel-St-II	ROR	Uttarakhand	NHPC	530	530	2013-14	Ready	PIB done on 15.5.07.Environmental clearance was obtained in Aug., 2007. Forest clearance is awaited and likely to be obtained by Dec., 2008. Proposal for forest clearance for the project is yet to be sent by State Govt. to MOEF. CCEA clearance is expected by Feb., 2009. Price bids invited. The project is scheduled to be commissioned by 2013-14.	A
7	Lata Tapovan	ROR	Uttarakhand	NTPC	171	171	2014-15	Ready	Land acquisition complete.All clearance obtained.Bids invited. LOA to be placed by April'09.Commissioning expected in 2014-15.	A

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
8	Vishnugad Pipalkoti	ROR	Uttarakhand	THDC	444	444	2013-14	Ready	PIB clearance on 26.2.07, CCEA approval expected by Sept'08. Envn. Clearance obtained. Forest clearance expected by Dec'08. Being Funded by world Bank. Work award by Mar'09. Tendering process is in progress.	A
9	Alaknanda (Badrinath)	ROR	Uttarakhand	IPP	300	300	2014-15	Ready	Allotted to GMR Energy Ltd, DPR submitted to CEA in 9/07 is under examination. LOA for major work expected by 3/09. Envn. clearance obtained in Mar'08. After TEC forest clearance will be applied. Land case for 5ha. required for infrastructure facilities filed with forest department in June'08. Concurrence by CEA accorded.	A
10	Pala Maneri	ROR	Uttarakhand	UJVNL	480	480	2013-14	Ready	Concurrence given on 23.2.07. Major civil works to be awarded by Feb'09.	A
11	Singoli Bhatwari	ROR	Uttarakhand	IPP	99	99	2012-13	Ready	Allotted to L&T, DPR cleared by CEA.	A
12	UBDC-III	ROR	Punjab	IPP	75	75	2012-13	Ready	Slipping from 11th. Plan. DPR approved. Revalidation of environment clearance obtained on 5.7.07. Forest clearance to be obtained.	A
13	Achenkovil	STO	Kerala	KSEB	30	30	2014-15	Ready	DPR approved by state. Works to be awarded by July'10.	A
14	Mankulam		Kerala	KSEB	40	40	2012-13	Ready	Award of Civil/HM/E&M works likely by Sept'08. DPR approved by State Govt. Forest clearance awaited.	A
15	Thottiar		Kerala	KSEB	40	40	2012-13	Ready	Civil/HM/E&M awarded on 13.06.08.	A
16	Gundia	ROR	Karnataka	KPCL	200	200	2013-14	Ready	Accorded concurrence by CEA on 25.4.08. Tender & bid documents under preparation.	A
17	Ramam St-III	ROR	W. B.	NTPC	120	120	2014-15	Ready	CEA clearance accorded in 9/06. MOEF clearance obtained on conditional basis in 8'07. Forest clearance awaited. Tender documents have been prepared and bids are scheduled to be opened on 31.7.2008 and award of works both for civil and E&M packages is expected by April, 2009. The project is expected to be commissioned by May, 2014 (2014-15).	A
18	Jorethang Loop	ROR	Sikkim	IPP	96	96	2014-15	Ready	Allotted to DANS Energy pvt. Ltd., N.Delhi. DPR cleared by State Govt. Land acquisition completed.	A
19	Pare	ROR	Ar. P	NEEPCO	110	110	2012-13	Ready	In principle forest clearance was accorded by MOEF in Jan., 08. PIB clearance was accorded on 28.1.08. Tenders for civil and E&M packages have been floated and the works are expected to be awarded by first and third week of Nov., 08 respectively. CCEA approval is being issued. The commissioning of the project is scheduled 44 months from the date of CCEA clearance.	A
20	Tipaimukh	STO	Manipur	NEEPCO	1500	1500	2016-17	Ready	TEC by CEA on 02.07.03. CCEA clearance awaited. PIL has been filed for which public hearing is in progress hearing planned during Mar'08. Update of EIA and EMP report is under progress. CCEA approval expected by Dec., 08. The commissioning of the projects is scheduled in 87 months after CCEA clearance i.e. by Feb., 2017.	B1
21	Loktak D/S	ROR	Manipur	NHPC	66	66	2016-17	Ready	PIB clearance was obtained in Nov., 2006. EIA/ EMP studies were awarded in April, 2008 and likely to be completed by Aug., 2009. This project is to be developed by a Joint Venture Company of Govt. of Manipur and NHPC. An MoU in this regard was signed on 14.9.2007. Environment & Forest clearances are likely to be available by Dec., 2009. The CCEA clearance is expected by Feb., 2010 and LOA for main civil & E&M works is scheduled by April, 2010. The project is scheduled to be commissioned by 2016-17.	B1
Total					5941					

HYDRO PROJECTS IDENTIFIED FOR BENEFITS DURING 12th PLAN

DPR Ready

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
1	Lakhwar Vyasi	STO	ttarakhar	NHPC	420	420	2015-16	Ready	TAC to be done by MOWR.Issue related to water sharing and cost benefits to be sorted out between the baneficiary states.Can be developed as a National Project.	B1
2	Pollavaram MPP	STO	A..P.	APID	960	960	2014-15	Ready	TAC to be done by MOWR, PH portion is to be transferred to APGENCO.	B1
3	Kundah PSS	PSS	amil Nad	TNEB	500	500	2012-13	Ready	DPR returned in 12/07 due to Inter State issues involved .	B1
Total						1880				

HYDRO PROJECTS IDENTIFIED FOR BENEFITS DURING 12th PLAN

DPR Under Examination

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity(MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
1	Kashang - I	ROR	H.P.	HPPCL	130	130	2012-13	Ready	Under process of award. Tie-up with ADB for funding.Tender documents prepared and sent to ADB for vetting.Tender for E&M equipment is under preparation and shall be sent to ADB for vetting.Revised DPR of Kasang St-I submitted to CEA in May'08.	A
2	Hanol Tiuni	ROR	Uttarakhand	IPP	60	60	2013-14	Ready	Alloted to Sunflag Power Ltd.DPR under scrutiny by State Govt.Environmental clearance obtained.	A
3	Rupsiyabagar Khasiyabara	ROR	Uttarakhand	NTPC	260	260	2014-15	Ready	DPR submitted to CEA in 10'07 & is under examination..Land acquisition started.Tender documents are ready. LOA for main civil works and E&M equipment are scheduled by Aug., 2009. Environment & forest clearance from MOEF are awaited. Land acquisition has been commenced.The project is expected to be commissioned by Jan. 2015.	A
4	Pambar	ROR	Kerala	KSEB	40	40	2014-15	Ready	DPR submitted to State Govt.for approval.Problem of forest clearance as the power house falls under reserved forest.	B1
5	Dikchu	ROR	Sikkim	IPP	96	96	2012-13	Ready	Allotted to M/s Sneha Kinetic power projects ltd, Hyderabad. DPR submitted to Govt. of Sikkim's for concurrence.Envn. Clearance received in April'08. Forest clearanne under process. Land acquisition process already started. Preparation of bid documents is in progress and invitation of bid expected by Sept.'08.	A

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity(MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
6	Rangit-II	ROR	Sikkim	IPP	66	66	2013-14	Ready	Allotted to Gammon India ltd. DPR submitted to State Govt. for concurrence in Feb'08.Envn. Clearance obtained in June'08.Forest clearance expected in Dec'08. Commencement of Acquisition of land started in Apr'08. Invitation of bids expected in Nov.'08.	A
7	Teesta St.-II	ROR	Sikkim	IPP	480	480	2015-16	Ready	Allotted to Him Urja infra pvt ltd N Delhi,DPR submitted to State Govt. in Feb'08.Opposition by locals..	B1
8	Siang Lower	STO	Ar. P	IPP	2400	600	2016-17 (2 units)	Ready	Allotted to JP Associates ltd.DPR submitted in June'08.Envn. & Forest clearance awaited.Preparation of tender specification and bid documents expected by Mar'09.	B1
9	Dibbin	ROR	Ar. P	IPP	125	125	2013-14	Ready	Allotted to KSK Electricity financing India Pvt ltd. DPR prepared by NEEPCO.Revised DPR submitted to CEA. Environmental clearance awaited.	A
Total						1857				

HYDRO PROJECTS IDENTIFIED FOR BENEFITS DURING 12th PLAN

DPR Returned/ Under Revision

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
1	Chirgaon (Majhgaon)	ROR	H.P.	HPPCL	42	42	2013-14	Rev. DPR Feb/09	Due to uncertainty of Dhamvari Sunda HEP, this project is being revised for 42MW. Revised DPR likely to be submitted by Feb'09.	B1
2	Luhri	ROR	H.P.	SJVNL	776	776	2016-17	DPR under revision	Revised DPR is expected to be submitted shortly. EIA/EMP studies are in progress and final report is expected by the end of August,08. Thereafter proposal for E&F clearance will be submitted. LOA for main civil and E&M packages is scheduled for Oct.,2010.	A
3	Renuka dam	STO	H.P.	HPPCL	40	40	2014-15	Rev. DPR 09/08.	Comments on hydrology are being attended to. Project being considered as National project and is to be funded by Central Govt./beneficiary States., Environmental & forest clearance awaited, Sharing of cost benefits to be decided.	B1
4	Sainj	ROR	H.P.	HPPCL	100	100	2013-14	Rev. DPR Dec. 08	DPR cleared by HPSEB, tender document under finalisation. Tie-up with ADB for funding. DPR returned by CEA for incomplete geological investigations.	A
5	Kashang-II & III	ROR	H.P.	HPPCL	130	130	12th. Plan	Rev DPR 10/08	Tenders are under preparation. Tie-up with ADB for funding. Geological investigation under progress. DPR of integrated Kasang (243MW) returned in 1/08.	A
6	Kashang -IV	ROR	H.P.	HPPCL	48	48	12th. Plan	Rev DPR 10/09	To be taken up subsequently. Tie-up with ADB for funding. DPR of integrated Kasang (243MW) returned in 1/08.	B1
7	Shongtong Karcham	ROR	H.P.	HPPCL	402	402	2013-14	Rev DPR 12/08	Being executed by Kinner Kailash Power Corpn Ltd., Company being promoted by HPSEB. DPR returned in 12/07. Comments of CEA being attended to and revised DPR to be submitted by 12/08.	A
8	Tangnu Romai	ROR	H.P.	IPP	44	44	2012-13	DPR under revision	Slipping from 11th. Plan. Being developed by Tangnu Romai Power Generation Ltd. Tenders for award for various packages are under progress. Award likely to be placed by Mar'09. DPR under revision for 44MW.	A
9	Baglihar-II	ROR	J & K	PDC	450	450	2012-13	DPR under revision	Some work already taken up with stage-I, Work awarded, DPR returned on account of poor geology and the same is being revised.	A

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
10	Kiru	ROR	J & K	NHPC	600	600	2015-16	DPR under revision	DPR prepared by NHPC .J&K Govt. in principle ready to execute the project in JV with NHPC.DPR returned in 4/06	B1
11	Kawar	ROR	J & K	NHPC	520	520	2015-16	DPR under revision	DPR prepared by NHPC .J&K Govt. in principle ready to execute the project in JV with NHPC.DPR returned in 4/06	B1
12	Ratle	ROR	J & K	To be decided	690	690	2015-16	DPR under revision	DPR prepared by NHPC was returned in 4/07 . Global bid has been invited.	B1
13	Kirthai-I	ROR	J & K	PDC	240	240	2015-16	Rev. DPR expected in '11/08	SPV is being formed. Cost updation to be done. To be developed through ADB funding in SS.DPR returned in 1/08.	B1
14	New Ganderbal	ROR	J & K	PDC	93	93	2015-16	DPR returned. Expected in '11/08	Revised DPR under preparation. SPV is being formed.To be developed through ADB funding.	B1
15	Bowala Nand Prayag	ROR	Uttarakhand	UJVNL	300	300	2014-15	Revised DPR by '10/08	DPR returned in 2/08.Revised DPR to be submitted by Oct.'08 . LOA expected by Dec'09.	A
16	Bhaironghati	ROR	Uttarakhand	UJVNL	381	381	2015-16	DPR returned. Likely submission '10/09	DPR submitted to CEA in Jan'08 & was returned in 2/08.Revised DPR likely to be submitted in Oct'09.S&I stopped due to local problem.	B1
17	Tuini Plasu	ROR	Uttarakhand	UJVNL	42	42	2014-15	DPR returned/ Under revision	Revised DPR expected by Jan'09.	A
18	Kishau Dam	STO	Uttarakhand	THDC	600	600	2016-17	DPR returned/ Under revision	DPR Returned, involves inter state aspect, DPR to be updated, Sharing of cost benefits to be sorted out. National Project .MOU with Govt. of Uttarakhand is yet to be signed. The MOU signing would be done after concurrence of Govt. of Himachal Pradesh on Int	B1
19	Dummugudem	STO	A..P.	APID	320	320	2013-14	DPR returned/ Under revision	DPR returned in 3'06 for modification, PH portion is to be transferred to APGENCO.	B1
20	Ramam St-I	ROR	W. B.	WBSEDCL	36	36	2015-16	DPR returned/ Under revision	DPR to be revised .WBSE Distribution co Ltd (WBSEDCL) is processiing for implementation.Due to land slide re-routing of project road being done. Agreement on inter state aspect is awaited	A
21	Panan	ROR	Sikkim	IPP	280	280	2013-14	DPR returned/ Under revision '09/08	Allotted to Nagarjuna Holdings Pvt Ltd.and is being executed by Himagiri Hydro Energy (P) ltd. DPR returned by CEA 31.10.07.Submission of revised DPR expected in Sept'08.Envn. & Forest clearance obtained.Bids invited in July'08.	A

Sl. No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
22	Teesta St.-IV	ROR	Sikkim	NHPC	520	520	2015-16	DPR returned/ Under revision	MOU signed on 1.3.06. DPR for this project was submitted in March,08.DPR has since been returned by CEA and some further investigations are required for firming up the installed capacity but due to agitation by Lepcha community work is held up. EIA/EMP	B1
23	Siang Middle (Siyom)	STO	Ar. P	IPP	1000	1000	2015-16	Ready (Revised DPR by 12/08)	Allotted to Reliance Energy.Environmental clearance obtained in March'05.Forest clearance awaited. DPR returned earlier by CEA is under revision.	B1
24	Talong	ROR	Ar. P	IPP	160	160	2014-15	Rev. DPR by '09/08	Allotted to GMR Energy ltd. DPR prepared by NEEPCO was returned by CEA in 6/06.DPR is being prepared and updated based on the details collected from NEEPCO and expected to be submitted in Sept'08.Environment & forest clearance awaited.	A
25	Lower Kopili	ROR	Assam	Assam GENCO	150	150	2014-15	DPR returned. Revised DPR by 10/08	Project to be executed by Assam GENCO. DPR submitted by Assam GENCO to CEA was returned for updating of hydrology.Submission of revised DPR expected in Oct'08.Envn & Forest clearance expected by April'09.Commencement of acquisition of land to start Sept'0	A
					7964					

HYDRO PROJECTS IDENTIFIED FOR BENEFITS DURING 12th PLAN
DPR yet to be prepared

Sl.No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
1	Bajoli Holi	ROR	H.P.	IPP	180	180	2015-16	02/10	Allotted to GMR Energy Ltd.PIA signed on 15.02.08. Investigation under progress. Submission of DPR by Feb'10.Envn & forest clearance expected in Sept'2010.	B1
2	Dhaura Sidh	ROR	H.P.	SJVNL	40	40	2015-16		Allotted to SJVNL for implementation. MOU for implementation of this project likely to be signed with Govt. of Himachal Pradesh shortly.	B1
3	Kutehr	ROR	H.P.	IPP	260	260	2014-15	9/09	Allotted to JSW Energy Ltd N Delhi. Project Implementation Agreement(PIA) signed on 01.3.08.	B1
4	Chango Yangthang	ROR	H.P.	IPP	140	140	2015-16	01/10	Allotted to M/S Malana Power Co. Ltd.in Apr'08.	B1
5	Arkot Tuini	ROR	Uttarakhand	UJVNL	72	72	2014-15	1/09	DPR expected by Jan'09. Award for main civil works by May'10.	A
6	Mapang Bogudiyar	ROR	Uttarakhand	IPP	200	200	2015-16	10/08	PFR ready, allotted to M/S GVK Ind.Ltd. under S&I,, DPR under preparation.Submission of DPR expected by October '08 . LOA expected by 2010. Commissioning in 2015-16.	A
7	Bogudiyar Sirkari	ROR	Uttarakhand	IPP	170	170	2015-16	10/08	PFR ready, allotted to GVK Ind. Ltd . under S&I,, DPR under preparation.WAPCOS is consultant for feasibility study expected by Oct'08. LOA expected by 2010.	A
8	Devsari Dam	ROR	Uttarakhand	SJVNL	252	252	2015-16	3/09	MOU signed, Under S&I.Feasibility report was submitted in Jan, 08. EIA/EMP studies are in progress and scheduled for completion by April, 2009. DPR is scheduled for submission by 15.3.09. Environmental and forest clearances are likely to be obtained by Sept,10. LOA for main civil and E&M packages are scheduled by January 2011. The project is scheduled for commissioning by Jan 2016 (2015-16).	A

Sl.No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
9	Jhelam Tamak	ROR	Uttarakhand	THDC	126	126	2015-16	3/10	PFR Prepared, Under S&I.Feasibility report submitted to CEA on 19.1.08.EIA and EMP studies are under award process and scheduled for completion by Jan,10.The DPR is expected to be ready by March, 2010. Environmental and Forest clearances from MOEF are awaited.	B1
10	Nand Prayag Lingasu	ROR	Uttarakhand	UJVNL	100	100	2014-15	11/08	PFR Prepared, DPR likely by Nov'08..	B1
11	Naitwar Mori (Dewra Mori)	ROR	Uttarakhand	SJVNL	56	56	2013-14	8/08	PFR Prepared, Under S&I.Feasibility report of this project was submitted in March, 08 and preparation of DPR by WAPCOS is in advanced stage and likely to be submitted by 31.8.08. EIA/EMP studies for which HNB Garhwal University is consultant, are scheduled for completion by August,08. Environmental and forest clearances are expected by Sept.,09. LOA for main civil and E&M packages are expected by Jan,10. The project is scheduled for commissioning in June,2013.	A
12	Tamak Lata	ROR	Uttarakhand	UJVNL	280	280	2015-16	12/08	PFR Prepared. S&I completed, DPR under preparation, expected by Dec'08.	A
13	Hosangabad	ROR	MP	NHDC	60	60	2013-14	under preparation	Draft DPR submitted to NVDA for firming up of cost estimates for item 'B-land and 'X-environment and ecology'.After confirmation of cost under these two heads, DPRs shall be finalized within a month. R&R issue involved. Commng during 12th plan.	B1
14	Handia	ROR	MP	NHDC	51	51	2013-14	under preparation	Draft DPR submitted to NVDA for firming up of cost estimates for item 'B-land and 'X-environment and ecology'.After confirmation of cost under these two heads, DPRs shall be finalized within a month. R&R issue involved. Commng during 12th plan.	B1
15	Baurus	ROR	MP	NHDC	55	55	2013-14	under preparation	Draft DPR submitted to NVDA for firming up of cost estimates for item 'B-land and 'X-environment and ecology'.After confirmation of cost under these two heads, DPRs shall be finalized within a month. R&R issue involved. Commng during 12th plan.	B1
16	Singareddy	STO	A..P.	APID	280	280	2012-13	12/08	DPR under preparation.	B1
17	Vythiri	ROR	Kerala	KSEB	60	60	2014-15	05/09	Envn.and forest clearance expected bySept'10 & June'10 respectively.	B1
18	Gundia-II	ROR	Karnataka	KPCL	200	200	2014-15	07/09	DPR under preparation, expected by July'09.	A
19	Ramman Ultimate(IV)	ROR	W. B.	WBSIEDCL	30	30	2015-16	05/09	DPR under preparation by WAPCOS and likely to be ready by May'09.	B1

Sl.No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
20	Thangchi	ROR	Sikkim	IPP	99	99	2014-15	11/08	Allotted to Lachung Power Pvt Ltd. MOEF clearance awaited.Draft DPR ready.S&I could not be done due to local problem.Presently problem resolved and power house relocated.EIA & EMP studies being conducted by WAPCOS.	B1
21	Bhimkyong	ROR	Sikkim	IPP	99	99	2014-15	11/08	Allotted to Teesta Power Pvt Ltd. MOEF clearance expected in July'09.Submission of DPR in Nov.08.Commencement of acquisition of land January'09.Invitation of bids in July'09.Commissioning in 2014-15.	B1
22	Bop	ROR	Sikkim	IPP	99	99	2014-15	11/08	Allotted to Chungthang Power pvt Ltd. MOEF clearance awaited.DPR to be submitted by Nov.'08.Envn. Clearance from MOEF expected by July'09.	B1
23	Nyamjunchhu St-I	ROR	Ar. P	IPP	98	98	2014-15	12/08	Allotted to Bhilwara Energy ltd in Oct'06.Envn.& Forest clearance expected in 12/09. Commencement of land acquisition expected from 06/10.Invitation of bids expected in 04/10. Commissioning in 08/2014.	A
24	Nyamjunchhu St-II	ROR	Ar. P	IPP	97	97	2014-15	12/08	Allotted to Bhilwara Energy ltd in Oct'06.Envn.& Forest clearance expected in 12/09. Commencement of land acquisition expected from 06/10.Invitation of bids expected in 04/10. Commissioning in 08/2014.	A
25	Nyamjunchhu St-III	ROR	Ar. P	IPP	95	95	2014-15	12/08	Allotted to Bhilwara Energy ltd in Oct'06.Envn.& Forest clearance expected in 12/09. Commencement of land acquisition expected from 06/10.Invitation of bids expected in 04/10. Commissioning in 08/2014.	A
26	Tawang-I	ROR	Ar. P	NHPC	750	750	2016-17	06/09	MOU signed in Sept'06, Under S&I.EIA/EMP studies have been awarded in June,07 and is expected be completed by June,09.LOA for main civil and E&M packages is scheduled to be awarded by Sept.,10. The project is scheduled to be commissioned by the end of 2016-17.	B1
27	Tawang-II	ROR	Ar. P	NHPC	750	750	2015-16	06/09	MOU signed in Sept'06, Under S&I.EIA/EMP studies have been awarded in June,07 and is expected to be completed by Sept.,08.DPR is expected to be submitted by Dec.,08. Environment and forest clearances are expected by March,09. LOA for main civil and E&M packages is scheduled to be awarded byMarch,10. The project is scheduled to be commissioned in 2015-16.	A
28	Tato-II	ROR	Ar. P	IPP	700	700	2015-16	01/09	PFR Prepared, allotted to Reliance Energy for Implementation. M/s SNC Lavline appointed as consultants. Financial closure expected by 3'09.	A
29	Hirong	ROR	Ar. P	IPP	500	500	2015-16	03/09	Allotted to Jaiprakash Power ltd. for Implementation, Forest and environment clearance awaited.DPR expected to be submitted in Mar'09..	B1

Sl.No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
30	Demwe Lower	ROR	Ar. P	IPP	1640	1640	2016-17	submitted in 09/08	State Govt wants ROR instead of storage. Alloted to Athena Energy ventures Pvt Ltd. DPR submitted in Sept'08.	B1
31	Demwe Upper	ROR	Ar. P	IPP	1640	1640	2016-17	12/08	PFR Prepared, state Govt wants ROR instead of storage. Alloted to Athena Energy Ventures Pvt Ltd.S&I in advanced stage .	B1
32	Kameng Dam	STO	Ar. P	IPP	480	480	2016-17	3/10	Allotted to KSK Electricity financing India Pvt Ltd. DPR by NEEPCO. Due to shifting of dam, FRL went down by 15M reducing I.C.to 480MW. S&I is in progress.	B1
33	Khuitam	ROR	Ar. P	IPP	60	60	2014-15	01/09	Allotted to Adhishankar Power Pvt. Ltd.PFR for revised I.C.of 60MW submitted to State Govt.	B1
34	Turu	ROR	Ar. P	IPP	90	90	2015-16	12/08	Allotted to ECI Engineering & Construction Company.PFR submitted. S&I in progress.	B1
35	Gongri	ROR	Ar. P	IPP	90	90	2014-15	12/08	Allotted to M/s Patel Engineering Ltd.DPR under preparation.	B1
36	SaskangRong	ROR	Ar. P	IPP	30	30	2014-15	12/08	Allotted to M/s Patel Engineering Ltd.DPR under preparation.	B1
37	Hirit	ROR	Ar. P	IPP	28	28	2013-14	09/09	Allotted to M./s Velcon Engineering Ltd. MOA signed with the State Government in June,2007.DPR under preparation.Likely date of submission of DPR 09/09.Envn. & Forest clearance expected in 07/09. Commencement of land acquisition to start in 10/09.	A
38	Dinchong	ROR	Ar. P	IPP	90	90	2015-16	03/10	Allotted to KSK Energy Venture Ltd. Reconnaissance study being carried out by a Canadian Agency. G&D sites are being established..	B1
39	Nafra		Ar. P	IPP	96	96	2013-14	11/08	Allotted to M/s SEW Energy and M/s SMEC India Ltd. are consultants. M/s Caden Surveys Pvt. Ltd. Are surveyours. Detailed topographical survey of reservoir and project area have been completed. DPR expected to be submitted by Nov.08.	B1
40	Pema Shelphu(Barpu)		Ar. P	IPP	97.5	97.5	2013-14	07/09	Allotted to M/s Raajratna Energy Holdings Pvt. Ltd. MOA with State Govt.signed on 27.12.2007.IC revised from 70MW to 97.5MW.For obtaining MoEF clearance for S&I for preparation of DPR draft PFR are being reviewed.Likely date of submission of DPR is 07/09.Envn.& Forest clearance expected by 12/09.Commencement of land acquisition to start in 08/09.Likely commissioning is 2013-14.	B1

Sl.No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
41	Kangtanshiri		Ar. P	IPP	60	60	2013-14	07/09	Allotted to M/s Raajratna Energy Holdings Pvt. Ltd. MOA with State Govt. signed on 27.12.2007. IC revised from 35MW to 60MW. For obtaining MoEF clearance for S&I for preparation of DPR draft PFR are being reviewed. Likely date of submission of DPR is 07/09. Env. & Forest clearance expected by 12/09. Commencement of land acquisition to start in 08/09. Likely commissioning is 2013-14.	B1
42	Nyukcha Rong Chhu	ROR	Ar. P	IPP	96	96	2015-16	8/09	Allotted to M/S SEW Energy in Sept'07.	B1
43	Mago Chhu	ROR	Ar. P	IPP	96	96	2015-16	8/09	Allotted to M/S SEW Energy in Sept'07.	B1
44	Umangi -I	STO	Meghalaya	MeSEB	54	54	2015-16		PFR Prepared, under S&I	B1
45	Kynshi-I		Meghalaya	IPP	450	450	2015-16		Project to be developed as JV between GoMe & Athena Projects Pvt. Ltd. MOA signed in Jan'08. Facing problem in getting data from Brahmaputra Board.	B1
					Total	10996.5				

HYDRO PROJECTS IDENTIFIED FOR BENEFITS DURING 12th PLAN
Facing Environment & Forest Problem

Sl.No	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th. Plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
1	Pambar	ROR	Kerala	KSEB	40	40	2014-15	Ready	DPR submitted to State Govt.for approval.Problem of forest clearance as the power house falls under reserved forest.	B1
2	Kameng Dam	STO	Ar. P	IPP	480	480	2016-17	11/10	Allotted to KSK Electricity financing India Pvt Ltd. DPR by NEEPCO. The dam site is proposed to be shifted to avoid submergence of Seppa Town resulting in reduction of Installed capacity from 600 MW to 480MW. S&I is in progress.	B1

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HYDRO PROJECTS IDENTIFIED FOR BENEFITS DURING 12th PLAN

Sl.No.	Name of scheme	Type	State	Agency	Installed Capacity (MW)	Benefit in 12th plan	Likely Year of Commissioning	Schedule for preparation of DPR	Status	Category
R & R Problem										
1	Hosangabad	ROR	MP	NHDC	60	60	2013-14	under preparation	Draft DPR submitted to NVDA for firming up of cost estimates for item 'B-land and 'X-environment and ecology'.After confirmation of cost under these two heads, DPRs shall be finalized within a month. R&R issue involved. Commissioning during 12th plan.	B1
2	Handia	ROR	MP	NHDC	51	51	2013-14	under preparation	Draft DPR submitted to NVDA for firming up of cost estimates for item 'B-land and 'X-environment and ecology'.After confirmation of cost under these two heads, DPRs shall be finalized within a month. R&R issue involved. Commissioningng during 12th plan.	B1
3	Baurus	ROR	MP	NHDC	55	55	2013-14	under preparation	Draft DPR submitted to NVDA for firming up of cost estimates for item 'B-land and 'X-environment and ecology'.After confirmation of cost under these two heads, DPRs shall be finalized within a month. R&R issue involved. Commissioning during 12th plan.	B1
166										
Local Agitation Problem										
1	Bhaironghati	ROR	Uttarakhand	UJVNL	381	381	2015-16	DPR returned. Likely submission 10/09	DPR submitted to CEA in Jan'08 & was returned in 2/08.Revised DPR likely to be submitted in Oct'09.S&I stopped due to local problem.	B1
2	Teesta St.-II	ROR	Sikkim	IPP	480	480	2015-16	Ready	Allotted to Him Urja infra pvt ltd N Delhi,DPR submitted to State Govt. in Feb'08. Opposition by locals.	B1
3	Teesta St.-IV	ROR	Sikkim	NHPC	520	520	2015-16	DPR returned/ Under revision	MOU signed on 1.3.06. DPR for this project was submitted in March,08.DPR has since been returned by CEA and some further investigations are required for firming up the installed capacity but due to agitation by Lepcha community work is held up. EIA/EMP studies were started in Jan,06 and are likely to be completed /finalized by Aug.08. Environment and forest clearances by MOEF is expected by Feb.,09. LOA for main civil and E&M packages are scheduled for placement by June,09. The project is scheduled to be commissioned by June 2015(2015-16).	B1
1381										