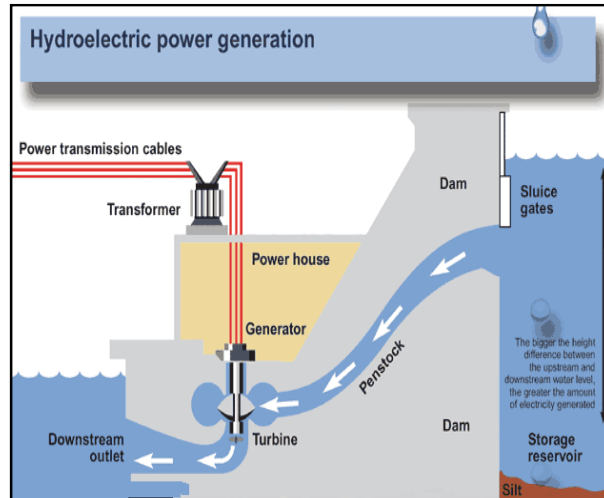


CHAPTER - 3

Framework for initiation and allotment of Hydro power projects

3.1 Profile of Hydroelectric projects

The hydroelectricity is generated through the use of the gravitational force of falling or flowing water. The power extracted from the water depends on the volume and on the difference in height between the source and the outflow of water²⁰. A large pipe called penstock delivers water to the turbine.



A hydro power project may be run of river²¹ or storage type. Therefore, features and specifications of the hydro power projects vary from project to project. The generating capacity of the hydroelectric project depends on various factors viz. water discharge, head²², etc.

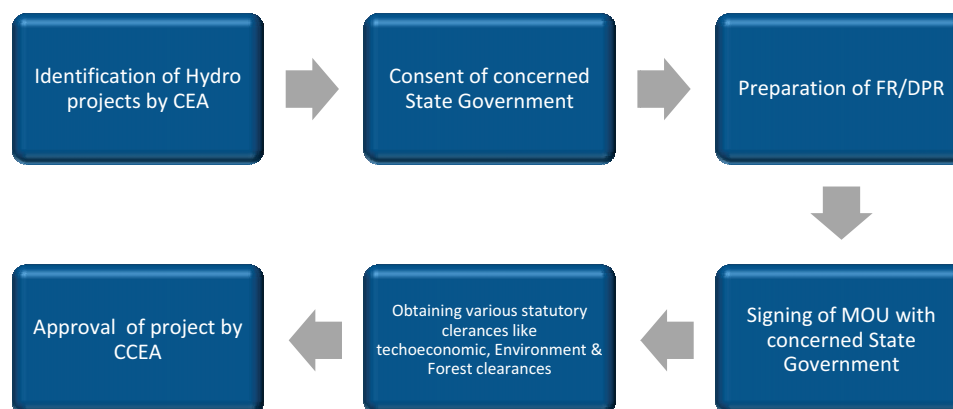
3.2 Process for identification of new Hydro power projects

The process of identifying hydro projects begins with the Central Electricity Authority (CEA). The hydro power project sites are identified by CEA. The following processes are followed simultaneously in development of hydro power projects:

²⁰ *The bigger the height difference between the upstream and downstream water level, the greater the amount of electricity generated.*

²¹ *Run of river hydroelectricity stations are those with small or no reservoir capacity, so that the water coming from upstream must be used for generation at that moment, or must be allowed to bypass the dam.*

²² *The difference in height between the source and the water's outflow is called head.*



The details of the approval and clearances required from different authorities for development of the hydro power projects are given in **Annexure-I**.

3.3 Corporate Plan

Company-wise targets fixed alongwith analysis of reasons of slippage in the capacity addition for the period 2007-12 are explained below:

NHPC Limited

3.3.1 Descaling the Corporate Plan

The Corporate Plan was approved by Board of Directors (BOD) in March 2002 for capacity addition of 10,341 MW (11 projects) to be achieved by March 2012 as detailed in the **Annexure-II**. The target was scaled down (October 2008) to 5,322 MW in view of the following:

- Three projects with capacity of 4,400 MW were allotted to private developers by the Government of Arunachal Pradesh.
- Two projects with capacity of 1,090 MW planned as Joint Ventures could not materialize during the Plan period *inter alia* due to non resolution of the JV issues with the State Governments.
- One project of 1,020 MW slipped due to non-firming up of Dam Axis and law and order problems.

However, five carried over projects (1,442 MW) from previous Plan period (2002-07)²³ were included and two new projects²⁴ (89 MW) were added. Therefore, the target for the period 2007-12 was revised down from 10,341 MW to 5,322 MW²⁵ (12 projects).

²³ Sewa-II (120 MW), Teesta-V (510 MW), Teesta low Dam-III (132 MW), Teesta Low Dam-IV (160 MW) and Omkareshwar JV project (520 MW).

²⁴ Chutak (44 MW) and Nimmo-Bazgo (45 MW)

²⁵ Uri-II project which was initially planned for 280 MW was reduced to 240 MW

Ministry/NHPC Management stated (March 2012) that NHPC took all the steps required to take up the projects. With regard to projects in Arunachal Pradesh, the MOU incorporating suggestions of GOAP was submitted but MOU could not be signed. Later GOAP allotted three projects to private developers.

SJVN Limited

3.3.2 Improper capacity addition plan

SJVNL in its Corporate Plan (2004-14) fixed (January 2005) a target of capacity addition of 1,404 MW to be achieved during 2007-12 through implementation of four projects.²⁶ However, subsequently, SJVNL in the Corporate Plan (2007-17) decided (December, 2008) that during 2007-12 it would implement only one project *i.e.* Rampur project (412 MW).

Audit observed that both these Corporate Plans were approved only by the Chairman and Managing Director and projects (except Rampur project) included in the Corporate Plan (2004-14) did not have specific consent of the respective State governments.

SJVNL Management stated (October 2011) that Company in its wisdom had also included those projects for which efforts would be made in addition to projects already allocated and that due to such vigorous persuasion, the GOUK allocated one project (Luhri).

Ministry/ Management further stated (March 2012) that while preparing Corporate Plan it is not possible to have assurance from Central/State Government for future periods. Further, Ministry/ Management noted (March 2012) Audit observation regarding approval of Corporate Plan by CMD instead of Board of Directors for future compliance.

²⁶ *Chunger Chal (240 MW), Khasiyabada (260 MW), Luhri (465 MW) and Rampur (439 MW)*

THDC India Limited and NEEPCO Limited**3.3.3 Absence of capacity addition plans**

THDC did not plan any new project for execution during XI Plan period of 2007-12. Instead slipped over project (*i.e.* Koteswar hydro project of 400 MW) of X Five Year Plan (2002-07) was included (October 2009) in the Corporate Plan. NEEPCO also did not envisage any new capacity addition during XI Plan period of 2007-12 and included two²⁷ slipped over projects of X Plan (2002-07).

Thus, in all four CPSEs, only 16 projects having total capacity of 6,794 MW were planned for execution against their original XI Five Year Plan target of hydro power capacity addition of 11,813 MW.

3.4 Lack of long term planning

Hydro Power Policy 2008 of GOI envisaged long term plan for XII Plan (2012-17), XIII Plan (2017-22) and XIV Plan (2022-27) with a target of Capacity addition of 30,000 MW, 31,000 MW and 36,494 MW respectively and formulation of action plan for better preparedness for capacity addition besides completion of survey, investigation and DPR preparation of 167 projects. It also envisaged that 33 projects with 14,535 MW capacities were identified in XII Plan for CPSEs.

A review of the preparedness of the CPSEs for the XII Plan revealed as under:

Sl. No.	Name of Company	Capacity addition envisaged for XII Plan (MW)	Capacity expected to be added as per preparedness of CPSEs (MW)	Remarks (Details as furnished by CPSEs)
1.	NHPC	4,502 (10 projects)	1,702 (8 projects)	Capacity addition for XII Plan includes 4,172 MW as carry over from XI Plan. A capacity of 2,800 MW ²⁸ is likely to slip beyond XII Plan.
2.	SJVNL	3,116 (7 projects)	412 (1 project)	Six projects (2704 MW) out of seven projects are expected to be completed in XIII Plan.
3.	THDC	1,000 (1 project)	1,000 (1 project)	Scheduled for commissioning in 2015-16.

²⁷ Kameng (600 MW) and Tuirial (60 MW)

²⁸ Parbati-II (800 MW) and Subansiri Lower (2,000 MW).

Sl. No.	Name of Company	Capacity addition envisaged for XII Plan (MW)	Capacity expected to be added as per preparedness of CPSEs (MW)	Remarks (Details as furnished by CPSEs)
4.	NEEPCO	2,511 (7 projects)	660 (2 Projects)	Five projects are expected to be completed in XIII Plan.
Total		11,129 (25 projects)	3,774 (12 projects)	Expected achievement would be only 34 per cent

From the above, it may be seen that these four CPSEs are likely to add only 3,774 MW capacity²⁹ (34 per cent of the planned capacity addition) in 12 projects in XII Plan as against 14,535 MW in 33 projects envisaged for 2012-17 in the Hydro Policy 2008.

3.5 Inadequate structural framework for initial activities

A systematic approach is required to be adopted for obtaining various clearances as well as post clearance activities viz. preparation of FR/DPR, bid documents, issue of NIT for major work packages, evaluation of bids and award recommendation. Timely completion of these activities ensures ordering of main civil works package immediately after Investment approval so that projects get completed within schedule.

Audit scrutiny revealed that against a time period of 30 months envisaged by MOP (June 2001) for pre-investment approval activities up to submission of note for investment approval to CCEA, actual time taken by CPSEs for different projects was as under:

Sl. No.	Name of the project	Capacity (in MW)	Name of the Company	Actual time taken against the prescribed timeline of 30 months
1.	Parbati-III	520	NHPC	80
2.	Nimmo-Bazgo	45	NHPC	58
3.	Chutak	44	NHPC	58
4.	Uri-II	240	NHPC	58
5.	Teesta Low Dam-IV	160	NHPC	56
6.	Chamera-III	231	NHPC	46
7.	Parbati-II	800	NHPC	42

²⁹ including 2,444 MW as slipped over capacity from XI Plan

Sl. No.	Name of the project	Capacity (in MW)	Name of the Company	Actual time taken against the prescribed timeline of 30 months
8.	Subansiri Lower	2,000	NHPC	36
9.	Rampur	400	SJVNL	33
10.	Sewa-II	120	NHPC	32
11.	Teesta V	510	NHPC	32
12.	Omkareshwar	520	NHDC (JV between NHPC and Government of MP)	32
13.	Teesta Low Dam-III	132	NHPC	29
14.	Koteshwar	400	THDC	12 ³⁰

(a) Delay in pre-investment activities

It is evident that CPSEs could complete pre-investment approval activities in only two of the 14 projects³¹ in time and there was marginal delay up to six months in five projects and in remaining seven projects pertaining to NHPC delay ranged up to 50 months. Thus, NHPC did not have adequate internal controls for monitoring pre-investment activities to ensure timely completion.

Ministry/Management stated (March 2012) that development of hydro electric projects is an intricate and long drawn process spanning over 3 to 5 years. Long time is required for survey and investigation, preparation of DPR, obtaining of statutory/non statutory clearance, investment decision and financial closure. Moreover, delays in obtaining environment and forest clearances have adverse impact on the Capacity Addition programme of the country.

(b) Time taken in obtaining clearances

Further analysis of five projects with excessive delays indicates unduly long time taken in obtaining clearances and completion of Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) studies against the benchmarks defined by MOP as under:

³⁰ *The project was originally conceptualized in November 1986. However, Committee of Secretaries considered (March 1993) taking up the work of Koteshwar project after the work of Tehri Stage-I picked up and therefore, the same was considered for execution in January 1999. As such, the date of initiation of pre-investment activities has been taken as January 1999.*

³¹ *Excludes two projects of NEEPCO as planning activities were not covered in this Performance Audit.*

Sl. No.	Name of project	Time taken in completing of EIA/EMP studies against benchmark of 18 months	Time taken in obtaining clearance (TEC, Environment, Forest etc.) against benchmark of 3-12 months
1.	Parbati-III	49	80
2.	TLDP-IV	35	74
3.	Uri-II	20	51
4.	Nimmo-Bazgo	15	60
5.	Chutak	15	66

Ministry/Management stated (March 2012) that timelines specified in the procedure of three stage clearance by MOP are subject to various inter-ministerial/interstate consultations. However, Management agreed that if timelines are fixed for all activities including other Ministries and State Departments, the delays can be reduced.

(c) Reasons for delays

The delays in various stages of initial activities are discussed below:

Audit observation	Reply of Ministry/ Management	Further remarks
<i>Delay in EIA/EMP studies</i> NHPC took 7 and 11 months in submission of Environment Impact Assessment (EIA)/ Environment Management Plan (EMP) studies after their completion to MOEF in respect of TLDP-IV and Chamera projects. Audit observed that NHPC did not furnish complete documents with environment clearance which were later on submitted on demand resulting in delay.	Ministry/ Management stated (March 2012) that application form for environment clearance is required to be submitted along with the report of a mandatory Public hearing conducted through State Pollution Control Board (SPCB), which is time consuming and often not in the hands of NHPC.	The reply is not acceptable and lacks merit as NHPC had submitted EIA/EMP studies to MOEF for obtaining environment clearance in respect of Teesta-V, Sewa-II, Parbati-II, Parbati-III and Subansiri Lower projects within a period of one month even after following the prescribed procedure.
<i>Delay in environment clearance</i> MOEF took 5 to 25 months against benchmark of three months for environment clearance for 11 projects (NHPC & SJVNL). The delays were due to submission of incomplete proposal forms, delay in examination of proposals by clearance authorities, raising multiple set of queries in phases and late submission of compliance report to MOEF.	Ministry/NHPC Management stated that delay in environment clearance from MOEF is not due to submission of incomplete proposal by NHPC but mainly due to lengthy process and various supplementary additional information sought in the meetings by Expert Appraisal Committee (EAC) members. SJVNL Management stated (March 2012) that they had submitted complete proposal for environment clearance of	Reply of the Ministry/ Management is not acceptable as multiple queries were raised by the concerned authorities mainly due to non-fulfillment of the prescribed procedure. Had these CPSEs followed the prescribed procedure and submitted proposal accordingly, the inordinate delays could have been minimized considerably.

Audit observation	Reply of Ministry/ Management	Further remarks
	Rampur HEP to MOEF and vigorously pursued with MOEF. Out of total time of 14 months taken in obtaining environment clearance, the time taken at State level was approx. 10 ½ months.	
<p><i>Incorrect assessment of land requirement-NHPC</i></p> <p>For construction of Parbati-II (800 MW) project NHPC had to revise the initially assessed and approved land requirement of 87.79 ha to 145.62 ha due to increased requirement of submergence area, job facilities, dumping area, quarries, re-alignment of roads and new roads. The forest clearance for additional 57.83 ha land was sought in November 2002 <i>i.e.</i> after award of main civil works in September 2002.</p> <p>Thus, the project was delayed as forest clearance for additional land was granted by MOEF in March 2004.</p>	NHPC Management stated (October 2011) that at the time of actual execution of works, the forest land was found to be inadequate.	Management has accepted the inadequacies as pointed out by Audit.
<p><i>Delay in firming up of layout and salient features of the projects-SJVNL</i></p> <p>In respect of Rampur project of SJVN Limited, the Company lost 23 months (May 2007 to May 2009) for obtaining additional forest clearance from Ministry of Environment due to delay in firming up the requirement of additional Adit³² near Kasholi Khad.</p>	Ministry/SJVNL Management stated (March 2012) that adequate survey and investigations were carried out and based on the same, the DPR was prepared which was further examined by various premier authorities of the GOI. In the approved DPR, four numbers of Adits were proposed for the execution of HRT works. However, during execution, Goshai Adit was excavated due to extreme poor geology.	Reply of the Ministry and SJVNL Management is not acceptable as such eventualities could have been foreseen with adequate survey and investigations at the time of preparation of DPR as envisaged specifically in the Policy on Hydro Power Development (1998).

While Audit appreciates that development of hydroelectric projects involves intricate and long drawn process, the feasibility of instituting a single window mechanism through constitution of a High Powered Committee, with Members from nodal Ministries and State Governments, under the chairmanship of the Secretary (Power) for monitoring and fast tracking clearances needs to be looked into.

³² Adit is a type of entrance to underground tunnels which may be horizontal or nearly horizontal.

3.6 Allotment of projects to private developers

The Government of India (GOI) allotted (May 2000) six projects³³ in Arunachal Pradesh to the NHPC. Later on Government of Arunachal Pradesh (GOAP) allotted four of these six projects to private developers/joint ventures, one project to NTPC and remaining one project to NHPC as discussed in succeeding paragraphs.

3.6.1 Chronology of the events

Chronology of the events of allotment of these projects is discussed below:

Date/Month	Brief details
22 January 1999	The Minister of Power wrote to the Prime Minister for expediting the development of hydro power projects in the North Eastern region and suggested that the survey and investigation of Dihang (13,400 MW) and Subansiri (7,300 MW) hydro projects needed early completion. This issue was examined by PMO in consultation with MOWR, MOP and MOF.
9 August 1999	Prime Minister approved that a Special Purpose Vehicle (SPV) should be set up by MOP for survey and investigation and implementation of these projects.
14 September 1999	MOP decided that formation of SPV could take time, therefore it would be in the interest of development of these projects that preparation of DPRs be taken up by dedicated teams forthwith. On formation of SPVs these projects may be taken over by SPV.
25 November 1999	MOP advised NHPC to immediately commence the survey and investigation of the upper and middle sites of Dihang (i.e. Siang) and Subansiri multipurpose projects from its own resources.
11 January 2000	MOP conveyed the sanction of the President of India to NHPC for incurring of an expenditure of ₹ one crore for survey and investigation of Siang Upper, Siang Middle, Subansiri Upper and Subansiri Middle projects.
22 March 2000	All these projects were handed over by the Ministry of Water Resources to NHPC. The MOWR intimated that NHPC may take over all the six sites lock, stock and barrel.
1 May 2000	MOP conveyed the order of the GOI under Section 18A of the erstwhile Electricity (Supply) Act, 1948 entrusting the job of establishing, operating and maintaining the projects in Dihang (13,400 MW) and Subansiri (7,300 MW) hydroelectric projects in Arunachal Pradesh to NHPC.
26 March 2003	The Memorandum of Understanding (MOU) proposed to be signed between NHPC and Government of Arunachal Pradesh (GOAP) for taking up Dihang and Subansiri basin projects was approved by MOP.
2 October 2003	The final MOU approved by MOP and after suitably incorporating the comments

³³ Three projects on Siang (Dihang) River-(i) Siang Upper, (ii) Siang Middle, (iii) Siang Lower and three projects on Subansiri River- (i) Subansiri Upper, (ii) Subansiri Middle and (iii) Subansiri Lower.

Date/Month	Brief details
	of GOAP was submitted to GOAP.
October 2003 to March 2005	The matter was taken up by NHPC with GOAP several times but the MOU could not be signed.
September 2003 to March 2006	Meanwhile, the survey and investigation work was carried out and DPR was prepared by NHPC in respect of four projects (Siang middle, Siang lower, Subansiri upper and Subansiri middle) allotted by GOAP to the private developer/joint ventures subsequently.
22 July 2005	The Cabinet of GOAP shortlisted three private parties namely Reliance Energy Limited, J.P. Associates Limited and D.S. Constructions Limited for allotment of five hydro power projects including Siang lower and Siang Middle projects entrusted to NHPC by the GOI under Electricity (Supply) Act 1948 besides three other projects. The Cabinet of GOAP also decided to constitute a committee consisting of Principal Secretary (Finance), Secretary (Power) and Chief Engineer (Hydro) to negotiate with the private parties to evaluate their technical capability, financial capability, range of power tariff at the time of completion of the project and other relevant details.
29 July 2005	Department of Power, GOAP constituted committee as per decision taken in the Cabinet meeting held on 22.07.2005.
10 August 2005	J.P. Associates Limited submitted their offer to the committee constituted by the cabinet of GOAP.
12 August 2005	Reliance Energy Limited and D.S. Constructions Limited submitted their offer to the committee constituted by the cabinet of GOAP.
06 September 2005	The Committee requested all the above three companies to submit their offers indicating the technical and financial credentials. All the three parties were also invited for negotiations on 05.09.2005 by the committee. Based on evaluation of offers of these companies, the committee recommended to take decision based on the highest benefit in terms of base cash flow.
07 September 2005	After going through the offers of the interested parties and the report of the High Powered Committee, the Cabinet of GOAP decided to offer Lower Siang & Hirong project to J.P. Associates Limited, Tato-II & Siyom ³⁴ projects to Reliance Energy Limited and Naying project to D.S. Constructions Limited for development.
13 September 2005	NHPC informed MOP that the State Government was contemplating transfer of Siang Middle and Siang Lower hydro-electric projects to the private developers.
3 October 2005	Minister of Power wrote to Chief Minister of Arunachal Pradesh that transfer of projects from NHPC at such an advanced stage would not be desirable and would rather send wrong signals to the Central Public Sector Undertakings operating in the State of Arunachal Pradesh. It was also further stated that this would not only hamper the Central Sector Investments in the State but would also have a bearing on the Centre-State relations.
22 February 2006	GOAP executed MOAs with the private developers for implementation of the projects on BOOT basis.
18 March 2006	Minister of Power wrote to Chief Minister of Arunachal Pradesh expressing serious concerns for alleged allocation of projects exceeding 100 MW without

³⁴ *Siyom and Siang Middle have been used interchangeably by various authorities.*

Date/Month	Brief details
	competitive bidding and also suggested to hold an urgent meeting to resolve the issues.
29 March 2006	GOAP intimated NHPC that they have entered into memorandum of agreement (MOA) with private developers and asked NHPC to hand over all documents of Siang Middle and Siang lower to the Private Developers namely Reliance Energy Limited and J P Associates Limited respectively.
24 April 2006	NHPC sought advice of MOP whether it would be appropriate to put company's point through legal route.
4-5 July 2006	A meeting was held between Minister of Power, Chief Minister of Arunachal Pradesh and CMDs of NHPC, NTPC and NEEPCO wherein it was discussed/ agreed that CPSEs preparing DPRs shall also execute the projects as substantial amount was spent by these CPSEs.
07 August 2007	NHPC Board discussed the issue and decided to hand over survey and investigation data and DPRs of the projects as per GOAP's request in view of the changed scenario due to withdrawal of projects by GOAP and allotment of some new projects.
August 2007	The Board proposal was also submitted to the MOP who viewed that this was a corporate decision to hand over projects to the private developers.
17 December 2007	On referring the matter to Ministry of Finance (MOF) for verification of quantum of money recoverable from the private developer, MOF sought reasons from MOP for withdrawal and transfer of projects to the private developers by GOAP.
20 June 2008	MOP did not actually give their views and only forwarded NHPC's view that NHPC was not aware of the withdrawal of the projects from NHPC by GOAP.
16 February 2009	GOAP allotted Siang Upper to NTPC for preparation of pre-feasibility report.
12 August 2009	The Cabinet of GOAP decided to withdraw Subansiri Middle HEP from NHPC Limited and allotted to the Hydro Power Development Corporation of Arunachal Pradesh for development as a joint venture with Jindal Power Limited.
12 March 2010	The Cabinet of GOAP allotted Subansiri Upper HEP to K.S.K. Energy Venture Pvt. Limited for development as a joint venture.
28 October 2009 and 18 May 2010	GOAP asked NHPC to hand over all documents related to Subansiri Middle and Subansiri Upper projects to Jindal Power Limited and KSK Energy Ventures Limited respectively.
27 September 2007 and 16 July 2010	MOP directed NHPC to hand over the projects to private developers on receipt of expenditure incurred.
April 2008 to February 2011	NHPC handed over three projects ³⁵ along with survey and investigation documents to the private developers on receipt of requisite amount. Fourth project <i>i.e.</i> Subansiri Upper is also in the process of handing over to the private developer (June 2012).

³⁵ *Siang Lower, Siang Middle, and Subansiri Middle projects*

It is evident from the above that

- Despite specific directions (August 1999) by the Prime Minister's office (PMO) that an SPV be formed for survey, investigation and implementation of the Dihang and Subansiri multipurpose projects in Brahmaputra basin in Arunachal Pradesh, no SPV was constituted by MOP. The SPV as envisaged with the representation of MOP, CEA, CWC, State Governments, etc. would have facilitated the process of implementation of these projects.
- The Policy on Hydro Power Development 1998 of GOI allowed State Governments for selection of a developer through MOU route for the Hydel project upto 100 MW only. Further, as per Hydro Power Policy of 2008, the State Governments are required to follow a transparent procedure for awarding potential sites to the private sector.

However, GOAP shortlisted (July 2005) only three private parties³⁶ for allotment of five hydro projects³⁷ (including two of the projects allocated by GOI to NHPC i.e. Siang Middle and Siang Lower projects) having proposed capacities ranging between 500 MW and 2,700 MW. Other two projects viz. Subansiri Middle (1600 MW) and Subansiri Upper (2000 MW), which were initially allotted by GOI to NHPC were also allocated (August 2009 and March 2010 respectively) by GOAP to the joint venture companies with Jindal Power Limited and KSK Energy Ventures Private Limited respectively wherein GOAP held 26 *per cent* equity and balance by these private developers. Transparency and competitiveness in allotment of hydro power projects as envisaged in the Hydro Policies of 1998 and 2008 was thus overlooked.

One more project viz. Siang Upper (of six projects allotted by GOI to NHPC), was allotted (February 2009) to NTPC by GOAP for preparation of pre-feasibility report only. Thus, out of six projects, only one project (Subansiri Lower) is being implemented by NHPC.

- Further these six projects conceived in January 1999 were allotted by GOI to NHPC in May 2000. DPRs of four of these projects (Siang Middle, Siang Lower, Subansiri Middle and Subansiri Upper) had been prepared by NHPC between September 2003 and March 2006. However, these four projects were subsequently, allotted (February 2006, August 2009 and March 2010) to private

³⁶ *Reliance Energy Limited, JP Associates Limited and D.S. Constructions Limited*

³⁷ *Siang Lower (2700 MW), Siang Middle (1000 MW), Hirong (500 MW), Tato-II (700 MW) and Naying (1000 MW) (Source: CEA website)*

developers/ Joint Ventures by GOAP, which are still (March 2012) at the initial stage of implementation as the private developers/ Joint Ventures are in the process of obtaining various clearances. One project (Siang Upper) allotted (February 2009) to NTPC for preparation of pre-feasibility report is also in the initial stage of implementation. **Thus, decision to allot projects from SPV to NHPC and subsequent allotment to the private developers/joint ventures/NTPC by GOAP resulted in the five projects out of total six conceived in January 1999 not taking off so far even after lapse of 12 years even though a large size hydro project as per CEA norms takes about 10 years from conceptualisation of a project to its commissioning.** The remaining one project (Subansiri Lower) is under execution by NHPC and expected to be completed by December 2016.

Ministry stated (March 2012) that

- A note for formation of SPV was initiated by the MOP but the Minister of Power decided that these projects be executed by NHPC which is much better equipped. MOP also added that withdrawal of the projects from NHPC was based on the GOAP's decision to involve the private sector in the development of hydro power projects and execution of the projects could take place only after signing an MOU with the concerned State Government.
- There are guidelines of GOI directing States to select developers through competitive bidding. The criteria for competition were left to the States and tariff based bidding was not a requirement. Further, State Governments were required to follow a transparent procedure for awarding potential sites to the private sector. MOP has made all efforts to implement the Hydro Policy and has consistently urged the GOAP to award projects to developers in a transparent manner based on competitive bidding. In this regard, MOP had requested GOAP for case-wise details on the method of allocation, methods adopted for publicity for the request for investments, list of bids received at pre-qualification stage and the final financial bids. However, replies of GOAP were awaited.
- The developers of these projects are in the process of obtaining necessary statutory clearances required as a precondition to begin execution.

Reply of the Ministry has to be viewed in the light of the following:

- The SPV was envisaged with the representation of MOP, CEA, CWC and the GOAP. Representatives of all the concerned stakeholders in SPV would have facilitated in expediting the implementation of these projects.
- The reply of the Ministry itself indicates there are guidelines of the GOI for competitive bidding and that the MOP did not have information/record to confirm that GOAP had followed transparency in the process of allocation of projects to the private developers/ joint ventures. From October 2003 when NHPC approached GOAP for signing of MOU for execution of four projects, GOAP did not take any action till July 2005. Instead of signing of MOU, GOAP started the process of identification of private developers for allocation of two of these projects to the developers. Finally, two projects were allotted to private developers by signing MOA on 22 February 2006. It is to be noted that four projects were allocated (May 2000) by the GOI to NHPC. These were subsequently allocated to private developers/joint ventures by GOAP without any consultation with GOI/NHPC. Further, the process of allocation of two out of these four projects was inordinately delayed and these were allotted to joint ventures with private developers, one in August 2009 and second in March 2010, though NHPC approached GOAP in October 2003 for signing of MOU for all the above four projects.
- Ministry's reply also acknowledges that these projects are in the initial stage of implementation. Inordinate delay in allocation of projects and further delay by the private developers/joint ventures, in the execution of these four projects has resulted in non-execution of these projects till date.

Thus, the decision to move from SPV to NHPC and then to private developers/joint ventures only added to the delays and the execution of the projects is yet to be initiated. Hence, the estimated benefit of generation of 6,600 MW electricity per annum, as per DPRs of four projects allotted to private developers/joint ventures, has not been achieved.