



**54<sup>th</sup> Council Meeting of the North-East  
Council at Aizwal  
18<sup>th</sup> May 2007**

*Report of the Sub-Group: IV for  
Examination of specific problems affecting  
Implementation of NRE Schemes, especially  
SHP in Arunachal Pradesh*

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**Constitution of the Sub-Group: IV**

- ❖ **Dr. A.R. Shukla, Advisor, MNRE ...Chairman**
- ❖ **Rep. of Planning Commission (SP-NE)...Member**
- ❖ **Rep. of Planning Commission (Energy)...Member**
- ❖ **Rep. of North-Eastern Council ...Member**
- ❖ **Rep. of Govt. of Arunachal Pradesh ...Member**
- ❖ **Shri Pankaj Asthana, Director, DONER.Member**



## **Co-opted Members/ Invitees of the Sub-Group: IV**

- **Director (SHP), MNRE**
- **Director (RVE), MNRE**
- **Director (Biomass Power), MNRE**
- **Director (BE), MNRE**
- **Rep. of NHPC**
- **Rep. of NEEPCO**
- **Rep. of Power Grid Corporation**
- **Rep. of NTPC (could not attend)**



## **Meeting of Sub-Group: IV**

- **Meeting of the Sub Group-IV for identification of specific problems affecting the implementation of New and Renewable Energy Schemes, especially Small Hydro Power in Arunachal Pradesh was held on 4<sup>th</sup> April 2007 at MNRE, New Delhi.**
- **17 Nos. of officers from MNRE, NEEPCO, NHPC, Power Grid Corporation, Arunachal Pradesh, Planning Commission, NEC and Ministry of DONER have participated in the meeting.**



## Problems Flagged (1)

- In the state of Arunachal Pradesh there is a lot of potential for harnessing small hydro power but reliable assessment has not been done by the State Government.
- Many of the SHP sites are stated to be in highly inaccessible areas.
- Survey and investigation of even suitable sites for SHP projects has also not been done by the State.



## Problems Flagged (2)

- Cost of construction of SHP projects are very high in the State due to high transportation cost, labour-cost etc. as informed by the State govt. Agency.
- The cost estimates of the SHP projects are prepared by the concerned State Govt. Departments normally without involving external/ independent technical experts.
- In contrast, on the basis of a NEEPCO project it could be inferred that costs can be reduced.



### **Problems Flagged (3)**

- **Shortage of funds is stated to be the main constraint in implementation of the NRE and SHP schemes. The financial support provided by MNRE is inadequate and needs to be enhanced.**
- **The State Government is also not allocating sufficient funds to small hydro power projects.**
- **There is a lack of trained technical manpower in the State.**
- **The installed capacity of small hydro power projects is not being utilized optimally.**



### **Recommendations Made (1)**

- **The energy/ electricity generation is to be enhanced to make the state of Arunachal Pradesh power surplus for the economic and overall development of the State.**
- **The surplus power generated in the State to become a tradable commodity with other states of the country resulting in revenue generation for the State.**



## Recommendations Made (2)

- **Hydro power having large potential needs to be harnessed on priority to meet the demand of power in Arunachal Pradesh.**
- **Wherever it is not possible to construct small hydro power projects, other renewable energy sources like, biomass, solar, wind etc. may be harnessed for providing energy and electricity in Arunachal Pradesh.**



## Recommendations Made (3)

- **The State Government has to formulate a long term policy for harnessing large potential of hydro power in the State involving public and private sector.**
- **State Government is to carry out detailed survey & investigation by involving technical experts drawn from public/ private sector companies and institutions to assess the actual potential and suitability of sites for small hydro power projects.**
- **The State Govt. need to prepare a master plan for SHP and NRE power generation in the state of Arunachal Pradesh in order to harness the potential in a time bound manner.**



## Recommendations Made (4)

- To handle the problem of inaccessibility of some of the potential sites, it is desirable that projects may be initiated from down stream upwards. The upstream sites can be taken up subsequently as and when the area becomes accessible.
- The State may follow the approach of clustering and allocating/ developing SHP projects basin-wise to reduce the cost, accelerating pace of execution and harnessing full potential.



## Recommendations Made (5)

- It is agreed that poor connectivity leading to transportation and labour-cost do increase cost of projects in Arunachal Pradesh.
- Variation in the cost of the projects is acceptable to some extent but excessive increase is not justifiable.
- The State Government is to get prepared cost break-ups and its analysis through external professional experts of public/ private sector companies in order to arrive at the actual reasons of increase in cost.



## Recommendations Made (6)

- In order to ascertain the reasons for exorbitant cost and also finding solutions for cost reduction, the examination of the cost-structure and cost break-ups and comparative cost analysis needs to include, among others:
- ex-factory cost of equipment and raw materials;
  - Cost of transportation to a nearest/ most common location in the State;
  - Cost of transportation to the project site from the nearest/ most common location;
  - Cost of labour;
  - cost of insurance etc.



## Recommendations Made (7)

- The NEC agreed to consider providing viability gap funding wherever required for SHP and other renewable power/ energy projects over and above the funds from MNRE.
- Ministry of Development of North Eastern Region may also consider providing financial support to renewable energy projects.
- The cost of projects can be shared between MNRE, NEC, M/o DONER and State govt. in addition to users (where applicable).
- MNRE may explore the possibility of relaxing the norms of funding various renewable energy projects/ programmes, in cases where the mechanism mentioned above is not workable.



## Recommendations Made (8)

- The power generated either through SHP or other renewable energy sources, needs to be evacuated for supply to the areas where load centers have been created in order to make such projects economically viable.
- The State Govt. needs to make plans and put in place an effective and efficient electricity grids:
  - For inter-linking various projects for evacuation of power;
  - For distribution and supply of power within the State;
  - Supply/ trading of power to other States of the country.



## Recommendations Made (9)

- The State Government needs to give top priority to the NRE and SHP sector programmes.
- For that sufficient funds needs to be allocated by the State Govt. as part of their share for completion of the projects in a time bound manner.
- As the State Government has got its own limitation of trained manpower to implement SHP and NRE projects, it would be most appropriate to hasten the process of involving private and public sector operators on the pattern of public-private partnerships.
- It is understood that the State Government is formulating a policy to attract private investors for execution of SHP projects.



## **Recommendations Made (10)**

- **The process of putting in place of the Policy instrument needs to be given a top priority by the State Govt. to achieve an expeditious establishment of SHP and NRE projects in the State of Arunachal Pradesh.**
- **The State Government is to work towards launching a socio-political-cultural movement to get extended/ lending hands to fructify faster implementation of NRE and SHP projects to bring about wealth, comfort and happiness in the State of Arunachal Pradesh.**

**Thank You**

**for your Attention !**