

# Standing Committee Report Summary

## Hydro Power

- The Standing Committee on Energy (Chair: Dr. Kambhampati Haribabu) submitted its report on ‘Hydro Power’ on January 4, 2019. Key observations and recommendations of the Committee include:
- **Hydro power as renewable energy source:** Currently, hydro power plants with up to 25 MW capacities are considered as renewable energy sources and are under the purview of the Ministry of New and Renewable Energy. Hydro plants with capacities over 25 MW are considered as conventional energy sources and come under the purview of Ministry of Power. The Committee noted that there is no logic in segregating hydro power into renewable and conventional energy on the basis of capacity. The green-house gas emissions from hydro power is 4-10 gram CO<sub>2</sub>/kWh which is lesser than that from solar power at 38 gram CO<sub>2</sub>/kWh, and from coal based thermal power at 957 gram CO<sub>2</sub>/kWh. It recommended that all hydro projects should be classified as renewable sources of energy.
- **Clearance issues:** The Committee noted that land acquisition is a persistent issue with hydro power projects, which results in project delays and cost escalation. It found that the actual problem lies in the execution of land acquisition and the implementation of resettlement and rehabilitation schemes for which the district administration is responsible. The district administrators have limited time as they are entrusted with plethora of work. Further, due to the complexity of land related matters, delays and unresolved issues are observed in the land acquisition and resettlement process. It recommended that the district administration should expedite such cases with the cooperation of the central and state governments and the project developer.
- The Committee also noted that three types of clearances are mandatory from three different wings of the Ministry of Environment and Forest (MoEF), which makes the process cumbersome. These are: (i) environmental clearance from Expert Appraisal Committee, (ii) forest clearances from Forest Advisory Committee, and (iii) wildlife clearances from National Board of Wildlife. The Committee suggested that while hydro power projects should be cleared after assessing their impact on the environment, due consideration should also be given to their net impact on the environment. The net effect of hydro projects has always been positive for the surroundings in terms of ground water recharge, flourishing of flora and fauna, flood mitigation, and availability of water for various purposes.
- The Committee observed that in last few years, MoEF has carried out river basin studies for the major river basins in Arunachal Pradesh, and the Chenab basin in Himachal Pradesh. It suggested that in order to avoid issues related to ecology and environmental-flow as faced in some states, hydro power projects should be identified and planned on the basis of such studies instead of developing them in isolation.
- **Financial issues:** The Committee noted that a typical hydro station is financed based on a debt to equity ratio of 70:30. It noted that despite the long life of hydro power projects, only short tenure loans are being issued to them. Since, the loan amount has to be repaid in 10-12 years, it leads to significant increase in tariff during the initial years. Further, due to uncertainties involved in development of hydro power projects, banks or financial institutions are not keen to finance these projects. Currently, of the 16 hydro projects, 10 are stalled due to financing issues. The higher interest rate charged on the loan further aggravates the problem of higher tariff of hydro power. It noted that cheaper financing is the major factor in enhancing viability of hydro projects. Therefore, long term loan at cheaper interest rate will help with projects becoming viable.
- **Incentives:** The Committee observed that due to higher hydro power tariff, developers find it difficult to sign Power Purchase Agreements (PPAs). It recommended that hydro power should be promoted in the same manner as solar power by providing for Hydro Power Purchase Obligation.
- **Water cess:** The Committee noted that certain states levy a water cess for every cubic meter of water used by a hydro power plant. However, there is no rationale in levying such cess as the water used by the plants goes back into the rivers. It adds to the burden of the already stressed sector. The Committee suggested that the levy of such cess be looked into. Further, the MoEF must persuade states to not levy such cess.

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