The Central Electricity Regulatory Commission (CERC) has sought views of the stake-holders by 7th March, 2008 on its proposal to amend Terms and Conditions of Tariff for Hydro Generating Stations. **The draft regulations issued by the Commission contain a mechanism for equitable sharing of risk (between a generator and its beneficiary) arising from variations in the availability of hydro energy vis-à-vis the design energy of a hydro generating station.** By linking the payment of capacity charges to `peak power capability’ for each day, the new Regulations would induce the hydro generating stations to provide maximum peak power.

2. So far the payment of annual fixed charges of hydro generating station was linked to its `capacity index’, which is basically an indicator of the availability of machines of a generating station. As a result, it is possible for a generating station to achieve high `capacity index' and thereby claim full capacity charge as well as incentive even when the actual generation has been low due to poor availability of water. **In the present dispensation the hydrological risk is passed on to the beneficiary, while income from extra generation due to higher availability of hydro energy with respect to design energy is retained**
by the generating company as `secondary energy' charge. This aspect of the Hydro Tariff Regulations came into sharp focus when Assam State Electricity Board made a representation to the Commission pointing out the hardship caused to them during two consecutive monsoon failures. Effective tariff to be borne by the beneficiary distribution utility for supply from a hydro generating station goes up in per kWh terms when hydro energy availability is less. Further, on account of less energy availability, the distribution utility has to procure costly power from the market on short-term basis to meet the short fall in order to meet its consumer demand. The Assam State Electricity Board has pleaded to the Commission to undertake a mid-term review of the hydro tariff regulations.

3. In case of Naptha Jakri Hydro Electric Station and Tehri Hydro Electric Power Stations, the Commission has been noticing a tendency on part of the generating companies to avoid peaking operation, on one pretext or other. It was observed that the generating companies have a tendency to operate their station at a constant load (MW) throughout the day, and are generally reluctant to shut off the machines during off peak hours and re-start during peak hours, required for providing peak power support to the electricity grid. Though the operating pattern of these generating stations have some what improved under pressure from the Regional Load Despatch Centre, the Commission feels that if the tariff structure is properly designed, the generating companies would, on their own, plan and endeavour to maximise peaking support for the grid in their own commercial interest.
4. Presently, in the case of old power stations, capacity charge component is very small or even nil and in such cases a generating company has little incentive to provide peaking power support. To avoid such a situation, it has been proposed to bifurcate the annual fixed charges into normative annual capacity charge and normative annual ratio charge into ratio of 50:50.

5. It has been proposed to replace the concept of `capacity index’ by the concept of `peaking power capability’ and payment of capacity charge would be linked directly to peaking support provided by the generating station on day-by-day basis. Accordingly, a capacity charge rate in Rupees per MW per Day would be specified for each generating station and there would be no separate element of incentive in tariff.

6. In the proposal, if a generating station were able to generate energy in excess of its designed energy, income there from would be retained by it. In case the generating station produces energy below it designed energy due to machine problems, less availability of water or any other reason, the deficit in the normative annual energy charge shall not be passed on to the beneficiary distribution utilities.

7. The generating companies involved in hydro-electric generation, namely, National Hydro-electric Power Corporation Limited, Sutluj Jal Vidyug Nigam Limited, Tehri Hydro Development Corporation Limited, North-Eastern Electric Power Corporation Limited, Narmada Hydroelectric Development Corporation and Damodar Valley Corporation have been directed to furnish by 7.3.2008, information in prescribed formats to enable
the Commission to determine values of Normative Annual Plant Availability Factor, Capacity Charge Rate and Energy Charge Rate, proposed to be introduced. In case a generating company is of the opinion that the bifurcation ratio of 50:50 for the recovery of Annual Fixed Charge should be different for a particular generating station, it may put up its proposal to the Commission latest by 7.3.2008.

7. It is proposed to implement the new regulations with effect from 1.4.2008.

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