

**SECTION – 6**  
**DEEMED GENERATION**

**6.1 EXISTING PROVISION**

The GOI tariff notification dt. 31.3.92 (as ammended upto 6.11.95) provides that

- i) If the station has achieved the Normative Availability level in a contract year, but actual energy generation falls short of Design Energy for reasons solely attributable to hydrology, the energy charges for the generation upto Design Energy shall be payable to the generating company during first seven years of operation.
- ii) In case of reduced generation due to the reasons beyond the control of generating company and non-availability of board's transmission lines or on receipt of back down instructions from the concerned Regional Electricity Board and if it results in spillage of water, the energy loss on account of such spillage shall be considered as deemed generation limited to the Design Energy.

**6.2 DISCUSSIONS**

- i) The provision for payment of energy charges upto Design Energy for the first seven years of operation, if there is short fall in generation due to availability of less water, means that hydrology risk for seven years is taken by the beneficiaries. This is mainly to install confidence in a private Investor. As the annual energy generation, in all probabilities, for most of the period, is likely to be equal or more than Design Energy, the beneficiaries are not likely to get adversely affected on this account. This provision should thus be retained.

- ii) The Deemed generation up to Design Energy as discussed in sub-para (i) above is admissible only if normative annual Availability is achieved. It needs to be clarified that Deemed energy benefits shall be reduced on pro-rata basis if annual Availability achieved is less than the normative Availability. For example, if in a contract year annual Availability achieved is 80% only, the Deemed Energy benefits shall be equal to 80/85 of Design Energy.
- iii) It would not be appropriate to provide incentive on achieving annual Availability more than 85% in such years when there is shortfall in generation due to failure of Hydrology.
- iv) Deemed generation benefits equivalent to spillage of water in case of reduced generations which is due to the reasons not under the control of generating company, is justified to protect the 'Return' on investment made by the generating company. This Deemed generation benefit however shall not be admissible in case total generation during the year is equal to more than the Design energy.

### **6.3 COMPARISON WITH INTERNATIONAL PRACTICE**

- i) Deemed generation benefit due to failure of hydrology is in line with the practice applicable in some other countries. In case of 681 MW Nam Theun 2 hydro-electric power project in Private Sector in Lao People's Democratic Republic, such a benefit is extended for 12 years.
- ii) Deemed Generation benefit in case of reduced generation due to reasons not attributable to the generating company is also in line with the practice being followed in other developing countries. Similar provision is made in the PPA

signed between Nepal Electricity Authority (NEA) and Himal Power Limited for the development of 72 MW Khimti Hydro electric Power Project in Nepal.

## **6.4 RECOMMENDATIONS**

### **i) Deemed Generation due to Failure of Hydrology (less water availability)**

If the station has achieved annual Availability of 85% in a contract year but energy generation falls short of Design Energy for reasons solely attributable to hydrology, the following charges shall be payable to the generating company for the first seven years of operation.

- (i) Full fixed charges
- (ii) Energy charges upto Design Energy.

Provided that if annual Availability achieved is less than 85%, the fixed charges as well as energy charges as above shall be reduced on pro-rata basis.

Provided further that incentive on achieving annual Availability more than 85% shall not be applicable.

### **ii) Deemed Generation due to other Reasons**

In case of reduced generation due to the reasons beyond the control of generating company and non-availability of board's transmission lines or as directed by the concerned board/regional load despatch centre and if it results in spillage of water, the energy loss on account of such spillage shall be considered as Deemed generation. Deemed generation

shall not be admissible if the energy generation during the year is equal to or more than Design Energy.