

### Comments on Consultation paper

Point No.	<u>Comments/Suggestion</u>
<b>10.5(a)</b>	The useful life of Hydro power plant is considered in the prevailing tariff Regulation is 35 years. This may be increased to 50 years, as the life of civil structure or tunnel is around 50 to 100 years. The capital cost of civil structure is around 75 % of the total capital cost. R&M stage may be part of tariff as the life of E&M component is around 35 years. This will reduce the overall tariff of the Hydro power projects and make them viable.
<b>10.5(b)</b>	In case operation of the hydro power station at regional level for balancing purpose and delinking the same with the requirement of designated beneficiaries is done, then bearing of proper fixed cost by the beneficiaries as well as PPAs signed with the beneficiaries for new projects, which are yet to be commissioned must be looked into. There is a requirement of payment security mechanism to whom power is being delivered otherwise outstanding dues of generating stations would increase.
11.	<p>Capital cost as well as tariff of Hydro power project is on higher side due to various reasons viz geological surprises, location of site, rock condition, delay in land acquisition, delay in getting statutory clearances and so on. Present Indian market is buyer oriented and higher tariff of hydro project increases the uncertainty of return of the investment for developer. Rate of renewable power specially wind and solar, is available in much cheaper rate in the market, which makes buyers reluctant to purchase the hydro power of higher tariff.</p> <p>As of now, share of hydro power in the total installed capacity is approx. 14 % only, which is not sufficient to cater to the grid balancing required due to large scale additions of the renewable generation. Therefore, development of Hydro power is essential. Hence, there must be concept/stress in the regulations for buyer (Beneficiaries) for buying the hydro power inspite of higher tariff.</p>
11.8	Hydrological risk for Hydro power projects are different and therefore benchmark cost cannot be ascertained. Moreover, fixing the benchmark /reference cost would discourage the investment by the developer. Already, share of Hydro power is reducing in the total installed capacity of India. This step would further decrease the addition of capacity in Hydro power.
14.0	The initial year tariff of Hydro Power station is very high due to higher depreciation rate for first 12 years to service the debt obligation of the bank. To reduce the tariff of the generating stations and to make the Hydro Power Stations viable, depreciation rate can be spread over the entire useful life of Hydro Power stations. Moreover, there is a requirement to revise the loan tenure given by the Bank/financial institutional.

17.0	As the capacity addition in hydro power sector is reducing on year on year basis. Therefore, investment in the hydro power sector needs to be promoted by continuing fixed rate of return approach.
18.0	The base rate of return of 16.5 % is allowed by the Hon'ble Commission for storage type hydro generating stations including pumped storage hydro generating stations and run of the river generating station with pondage. As the capacity addition in Renewable Energy sources is on rapid growth, therefore balancing arrangement through Pondage and Storage type of Hydro power station is essential. Hence, in the present market condition, base rate of return of 16.5 % needs to be continued and even promoted by giving some additional benefit to the storage / Pondage type Hydro Power stations.
19.0	The existing approach of allowing cost of debt based on actual weighted average rate of interest needs to be continued to promote the Hydro Power Sector.
26.0	<p>A separate category of hydro power stations operating in tandem with upstream projects is required and separate operational norms viz NAPAF, FGMO/RGMO is to be considered for tandem projects.</p> <p>SJVN Limited, 412 (6 X 68.67) MW of Rampur Hydro Power Station (RHPS) is being operated in tandem with the upstream project i.e. 1500(6 X 250) MW Nathpa Jhakri Hydro Power Station (NJHPS) and is dependent on the water released from the NJHPS. RHPS is a unique generating station which does not have its own storage / pondage at all and is operating with water coming out from the Tail Race Tunnel of NJHPS.</p> <p>Due to tandem operation of aforesaid two projects, if for any reason, one unit of Nathpa Jhakri Project of 250 MW is out of operation and accordingly the proportionate water cannot be utilised for generation of one unit of 68.67 MW of the Rampur Project. Although all the units of Rampur Project are fully available, but because of non-availability of water from the Nathpa Jhakri Project (due to non-availability of one unit of Nathpa Jhakri Project), water equivalent to one unit does not get released till such time the 250 MW of Nathpa Jhakri Project is brought back into operation. Similarly, if one unit of Rampur Project cannot be operated for any reason, the operation of all six unit(s) of Nathpa Jhakri Project and release of water for the purpose would result in the wasteful/spillage of water, due to not being utilised for generation of electricity by Rampur Project for the capacity of one unit of 68.67 MW.</p>

	<p>In the peculiar facts and circumstances mentioned herein above, SJVN Limited is constrained not to release the water for generation of electricity in both the Nathpa Jhakri Project and Rampur Project, under the circumstances where a unit of Rampur Project or the Nathpa Jhakri Project, as the case may be, is not available for generation of electricity, though the unit in the other project is available for generation and supply of electricity. Hence one more category / type of hydro power station operating in tandem is required.</p> <p>Moreover, FGMO/RGMO response during frequency variation in downstream project is difficult, as it is operating based on the tandem logic of the upstream project. Hence, such projects should get relief from FGMO/RGMO response.</p>
27.2	<p>Incentive during peak and off peak period is required to be different for those stations who are proving peaking support as per the Grid requirement. Higher incentives is required to promote storage/pondage type of stations.</p>
32	<p>Standardization of billing process including formats, verification and timeline etc. is required which would be helpful for Generating companies as well as Discoms.</p>