





July 25, 2018

## Secretary,

Central Electricity Regulatory Commission 3<sup>rd</sup> & 4<sup>th</sup> Floor, Chanderlok Building, 36, Janpath, New Delhi- 110001. Ph. 011 - 23753915

# Kind Attn: Sh. Sanoj Kumar Jha

Subject:

Comments/ Suggestion on Consultation Paper on "Term and Conditions of Tariff Regulation for tariff period commencing from 1<sup>st</sup> April 2019 to 31<sup>st</sup> March 2024. (No.L-1/236/2018/CERC)

Dear Sir,

This refers to the Consultation Paper on "Term and Conditions of Tariff Regulation for tariff period commencing from 1<sup>st</sup> April 2019 to 31<sup>st</sup> March 2024 (No.L-1/236 /2018/CERC).

Our suggestions/ comments on the proposed Term and Conditions of Tariff Regulation (2019-24) are enclosed for your due consideration.

Thanking You,

Yours Truly

For AD Hydro Power Limited

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## Comments on Consultation Paper for Terms & Conditions for Tariff Regulations 2019-24

The declining share of Hydro Power in the total installed capacity of the country which is currently meagre 14% requires immediate policy measures interventions by Government/ Ministry of Power.

## 1) As provided in the Proviso No. 7.1.2 (b) of Consultation Paper

# "Tariff Design -Generation & Transmission

**7.1.2 (b)** "For hydro power plants, the recovery of fixed charges is through two components i.e. "capacity charges" & "energy charges", each component representing 50% of Annual Fixed Charges (AFC). Recovery of "capacity charges" is linked to availability of plant and recovery of "energy charges" is linked to actual energy generated"

#### Comment:

Aforementioned tariff structure is appropriate and should be continued. Further, "A Must Run" status should be accorded to the Hydro power projects as in the case of Renewable Energy Projects.

## 2) As provided in the Proviso No. 7.4.1 of Consultation Paper

# "Hydro Generating Stations - Tariff Structure

**7.4.1** The two part tariff structure of hydro generating stations seems adequate in present scenario. However, in view of large capital cost, hydro generating stations often find it difficult to get dispatched due to resultant higher energy charges. In order to address this issue, for the hydro generating stations, the fixed charges and variable charges may need to be reformulated."

### **Comment:**

Hydro Power projects are capital intensive with long gestation period and sometimes faced with the issues like geological surprises, delay in land acquisition, inaccessibility due to remote locations, this being resulting into high Interest during construction (IDC). Therefore, interest subvention for Hydro Stations with creation of Hydro power development fund could be introduced to provide some relief in inflated cost due to the aforementioned reasons.

# 3) As provided in the Proviso No. 10.4 & 10.5 of Consultation Paper

## "Hydro Generation

**10.4** The present commercial framework under PPA allows the use of hydro power to meet the demand of the designated beneficiaries under PPA. There is a need to extend the use of hydro power for balancing the variability of renewable generation. In other words, there is a need for a framework for

flexible operation of the hydroelectric project. Further, as the scheduling of cascade hydro power station i.e. reservoir operations at a hydro plant affect the cascade downstream and upstream reservoirs, there is a need for a coordinated approach for scheduling of such hydro projects."

#### Comment:

Upstream hydro project generally affects the operational capabilities of the downstream project in a very significant manner. For example, if the upstream project is selling its power to a long term beneficiary where it can revise its schedule on real time basis and whereas the downstream project selling its power under merchant route on short term basis, is not allowed to revise their schedule on real time. There may be instances of spilling of water and loss of energy generation. In the absence of any established mechanism for such cascade operation of hydro projects, the issue gets precipitated resulting into mismanagement of natural resource and spillage of water, which is not only a commercial loss but a national loss as well. Therefore, a well-coordinated mechanism having similar set rules & regulations for their schedule revision must be evolved in a cascade operation of hydro projects.

# 4) As provided in the Proviso No. 10.5 (a) of Consultation Paper

## "Options for Regulatory framework

10.5 (a) Extend the useful life of the project up to 50 years from existing 35 years and the loan repayment period up to 18-20 years from existing 10-12 years for moderating upfront loading of the tariff."

#### Comment:

Normally, Hydro Projects are allotted to private developers for a period of 35/40 years and accordingly Implementation Agreements have been signed with respective State Governments. While extending the life of the hydro projects upto 50 Years, would require change in the Hydro Power Policy as well as in the Implementation Agreement with State Government.

## 5) As provided in the Proviso No. 11.7 of Consultation Paper

#### "Capital Cost

**11.7** There are also specific issues and challenges in respect of hydro generating stations.

i) The trend of capital cost of hydro generating stations indicates that the hydro stations are becoming un-viable due to higher tariff. The present approach may need to be reviewed in view of sustainable benefits offered by hydro generation in terms of clean power and high ramping rates."

## **Comment:**

Capital Cost as mentioned in investment approval sometimes doesn't involve the cost relating to geological challenges and hardships like local agitation, delay due to unforeseen circumstances etc. Therefore, capital cost benchmarking for area wise hydro projects of various capacity may

provide some relaxation in order to provide fair judgement of the capital cost of the project. With the Hydro projects of total Installed capacity 45,403 MW already commissioned, this can have large pool of audited capital cost data of various hydro projects across various geographies/locations of India, which can be used while setting such benchmark costs. This may also give fair value of the project cost which would be planned in such geographies/locations in future.

Such practice would help in assessing the more cost competitive geographies/locations for the hydro power projects developers and need for incentive requirement for under developed geographies/locations may be planned.

# 6) As provided in the Proviso No. 14.3 (iii) of Consultation Paper

## "Depreciation

## 14.3

**iii)** The useful life of Hydro Stations, as specified in Tariff Regulation, 2009, is 35 years. However, the actual life of these Hydro stations may be much more than 35 years. For hydro stations allowing higher depreciation rates during first 12 years results in front loaded tariff. To keep the tariff on lower side, the depreciation rate for hydro stations could be spread over the entire useful life i.e. 35 years. Similarly for thermal stations, the life may be more than 25 years and the International experience in this regard needs to be looked into to bring further improvements."

#### Comment:

With the given 90% depreciation for the entire useful life of the project, the tenure of debt funding should be also be increased.

# 7) As provided in the Proviso No. 18.7 (d) & (g) of Consultation Paper

## "Rate of Return on Equity

"18.7

- (d) In respect of Hydro sector, as it experiences geological surprises leading to delays, the rate of return can be bifurcated into two parts. The first component can be assured whereas the second component is linked to timely completion of the project.
- (g) Reduction of return on equity in case of delay of the project"

## **Comment:**

Existing rate of return as per 2014-19 regulations may be continued. Further there should not be any disincentive in case the hydro project gets delayed on account of geological surprises, delay in land acquisition etc.

# B) As provided in the Proviso No. 19.5 (c) of Consultation Paper

# Cost of Debt

"19.5 (c) Link reasonableness of cost of debt with reference to certain benchmark viz. RBI policy repo rate or 10 year Government Bond yield and have frequency of resetting normative cost of debt."

### **Comment:**

In case debt restructuring is done by developer after financial closure or after commissioning of the project, the same should be considered as incentive for the developer.

Debt restructuring is the tool with the developer to get incentive for their effectiveness.

# 9) As provided in the Proviso No. 21.2 of Consultation Paper

## **Operations & Maintenance Expenses**

"21.2 Some of the issues and challenges in fixation of O&M expenses norms are:

• The fixed escalation rate used for arriving year on year O&M cost, takes into account WPI and CPI indexation. However, variations in WPI & CPI index pose challenge in specifying the fixed escalation rate for the entire tariff period. Further, the fixed escalation rate does not capture the variation due to unexpected expenses such as wage revision etc."

#### Comment:

The system of O & M expenses as % of capital cost as existing may be continued. O & M Expenses should be linked with inflation index as issued by DIPP (Department of Industrial Policy & Promotion) on yearly basis or with RBI indices.

## 10) As provided in the Proviso No. 26.6(1) of Consultation Paper

## **Hydro Generation**

"26.6.1 The existing Operational norms of Hydro generation include norms for auxiliary consumption, transformation losses and normative annual plant availability factor. Capacity Index as a measure of plant availability was implemented by the Commission during tariff periods 2001-2004 and 2004-09. It was based on the concept that hydrology risk has to be borne by beneficiaries all the time. After consultation, capacity index concept was modified with the new concept of Normative Annual Plant availability Factor (NAPAF) during 2009-14 and continued during 2014-19 based on actual data. However, in case of a few hydro plants the same was revised. This is based on the premise that hydrology risk is to be shared by the generator & the beneficiary in the ratio of 50:50. There may be need for review of existing values of NAPAF based on actual PAF data for last 5 years."

## **Comment:**

For large Hydro power Projects, Hydrology is appraised by the competent agency like Central Water Commission and Central Electricity Authority based on the data available. The developer put an investment based on the credibility of the agencies who appraised the Hydrology aspects.

It would therefore be not proper to put Hydrology risk on the generator and therefore should be borne by the beneficiary. The Hydrology may change due to climate change taking place which is not in the control of the generator and therefore should come under Force Majure conditions.

# 11) As provided in the Proviso No. 27.2 of Consultation Paper

#### Incentive

"27.2 At present there is same incentive for availability during peak and off peak period. There may be a need for introducing differential incentive during peak and off peak periods. On the same consideration, there may also be a need for higher incentive for the storage and pondage type hydro generating station providing peaking support. At present, generation beyond the design energy is paid at 80 Paise/kWh in case of hydro generating station, which may also need review."

#### Comment:

The system of differential incentive during peak and off-peak period is a must for storage based Hydro Power Project to compete with other base load conventional and renewable energy sources. Moreover, with the Time of Day tariff mechanism, utilities may also recover such costs from the consumers.