

**OTPC Palatana Project – Comments on CERC**  
**Staff Consultation paper on Terms and**  
**Conditions of Tariff 2019-2024**

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**1. General (Change in Financial Parameters):**

It is humbly submitted that the spurt in the generation capacity was a result of the fixed returns (RoE) promised to the generators in the previous policy structure and CERC regulations. Generators have developed their projects based on the very premise of these returns after due financial approvals from their Board and financial institutions. Any change in the financial parameters will not only hamper the existing projects which are already facing reduced returns due to fuel supply problems, payment problems and delays in project execution due to non-controllable parameters but also such regulatory uncertainty is expected to discourage investment in conventional along with renewable, transmission and rest of energy sector.

**2. Two part and Three Part Tariff Structure:**

Consultation Paper has suggested that the tariff for supply of electricity from a thermal generating station could comprise of three parts, namely, fixed charge (for recovery of fixed cost consisting of the components of debt service obligations allowing depreciation for repayment, interest on loan and guaranteed return to the extent of risk free return and part of operation and maintenance expenses), variable charge (incremental return above guaranteed return and balance operation and maintenance expenses) and energy charges (fuel cost, transportation cost and taxes, duties of fuel).

The approach suggested by consultation paper to further break the AFC cost into two components that is Fixed Charge and Variable Charge may be avoided. Thermal Generators are already facing low PLFs and low Availability due to fuel shortage problems and the influx of renewable generation will further add to the present concerns. It is paramount to ensure regulatory certainty because of the fact that all generators set up stations on the very premise that at least the RoE will be fixed and they will be able to make some return on their investment through this component. **This amendment, if proposed, may be restricted to new projects alone which are not in construction phase either.**

It is kindly submitted that in the three-part tariff design:

- 2.1. The Fixed Charge too is not guaranteed as its recovery is linked to NAPAF which may reduce because of uncontrollable reasons. It would be very difficult to propose new investment under such uncertainty.
- 2.2. Further, the PLF of the plant is not controllable by the generators alone and hence the recovery of the variable charge would be completely contingent on factors that are not controllable.
- 2.3. This bifurcation of RoE into risk free return and premium will further increase the uncertainty of the returns for generators and will be a deterrent for new capacity addition.
- 2.4. The risk free return are not expected to be constant for a developing country like India and if linked to tariff will further add to the uncertainty.

2.5.If Return on Equity is reduced the equity investment will also reduce resulting in increase in funding cost because of relative return risk for banks. Hence this approach to reduce RoE will be counterproductive.

2.6.CERC may keep the existing two part tariff structure to continue.

2.7.Further, the returns to a generator are already diminishing from the approved and implemented 15.5% due to long gestation period of projects, delays in project execution for the uncontrollable reasons and no return allowed during construction period. It is evident that any further reduction in RoE and realization of this capacity based on PAF and PLF would only further reduce the returns for existing players which are finding it hard to stay competitive in a power surplus market. **It is hence proposed that RoE may be allowed to generators during the construction period too** in this market where generators are facing reduced PLFs with further rapid integration of renewable generation.

### **3. Return on Equity and Tariff Policy:**

Under Section 61, The Electricity Act 2003 enjoins the Appropriate Commissions to encourage competition, efficiency, economical use of the resources, good performance and optimum investments to achieve the objects and the purpose of the Act.

In line with the EA-2003, the National Tariff Policy published on 28<sup>th</sup> January, 2016, lays down its objective under section 4 as follows:

3.1.Ensuring financial viability of sector & attract investment.

**3.2.Promote transparency, consistency and predictability in regulatory approach across jurisdictions and minimize the perceptions of regulatory risks.**

In line with the above objectives, it is requested to provide a reasonable return to the investors and strike the right balance between the consumer's interest and the need to attract and sustain capital. In addition the proposed three-part tariff method to calculate the Return on Equity (RoE) and other returns should also be in accordance with the letter & spirit of National Tariff Policy.

Therefore, in line with the above **we urge Commission to kindly not change the RoE calculation method for existing projects as proposed in consultation paper on tariff regulation 2019-24.** In addition, the predictability of regulation should be the basic tenant **retain the true essence.**

Further, it is requested that if project cost increases due to uncontrollable factors than same RoE should be allowed on additional equity and not weighted average equity.

#### **4. Debt-Equity Ratio:**

We would like to submit that:

4.1.D:E ratio of 80:20 is a deviation from Tariff Policy which states D:E of 70:30. Hence D:E may be kept same i.e. 70:30 for existing projects as in present regulations.

4.2.International lenders like ADB also prefer 70:30 ratio rather than 80:20 due to the risk involved.

### **5. Reserve Shut Down & Part Load Operation in NER region:**

In North Eastern region the percentage share of hydro power in total installed capacity of NER is almost three times in comparison to rest of India.

	<b>All India Installed Capacity</b>	<b>Percentage of Hydro Power</b>	<b>NE Region Installed Capacity</b>	<b>Percentage of Hydro Power</b>
<b>MW</b>	343898	45403	4026	1452
<b>% Composition of Hydro</b>		12%		36%

Source: CEA

NER being the smaller region in terms of geographical spread, accordingly, due to sudden change of weather (Rainfall) or any parameter effecting temperature always causes more impact on demand pattern in comparison to other regions.

Therefore, due to integration of more hydropower and lesser geographical spread, in NER, the following issues are very common for other power plants

A. Reserve Shut down

B. Part load Operation

Both the issues not only increases O&M expenses but also contributes in effecting the longevity of the machine. Therefore, we request Hon'ble Commission to kindly consider these points.

#### **6. Additional Incentive for NER:**

As per Tariff Regulation 2014-19, under section 37 regarding Norms of operation for hydro generating stations, there is a provision of further allowance of 5% in NAPAF considering the difficulties in North East Region. We would like to raise the point that difficulties pertaining to NE Region is same for all projects whether it is a Hydro power plant or a Gas based power plant. Therefore, relaxation in NAPAF should be given to all the projects based in NE region irrespective of its fuel.

Also, in far flung project location, the project developer always struggles with the issues like mobilization of skilled / non skilled manpower, connectivity with the main land, transport infrastructure, extreme weather conditions etc.

So, in case of outage / plant shut down due to fault in machine/ equipment's / spare parts it would always a time taking task to rectify the issue. Not only time, it also takes much more efforts to mobilize the expert to the site, which ultimately causes cost implication.

Therefore, **it is requested to consider additional incentive to the developers for NE region.**

**7. Long Term Service Agreement:**

Generally, the payment regarding the Long Term Service Agreement needs to be done by the developers in US dollars. However, presently, Hon'ble CERC has fixed the O&M ceiling on Rupees per MW basis for any such expenses and therefore, there is no provision for considering the dollar rate fluctuation. So, it is requested to consider the dollar rate fluctuation into account.

**8. Re-Financing Benefits:**

Presently, the re-financing benefits needs to shared between developer and the beneficiary in the ratio of 1:3. Generators are being made to share all the efficiency benefits with beneficiaries however all the losses on accounts of inefficiency are borne by the generators alone. In such a scenario to create a win-win situation we request Hon'ble Commission to kindly consider sharing of benefits in 1:1 ratio.



Also it is requested to Hon'ble Commission to define Refinancing in detail for easy of calculation and tariff filling.

**9. Late Payment Surcharge (LPSC):**

It is requested to provide a clear mechanism for settlement of payment made by beneficiaries towards outstanding dues. The regulations should clearly outline that payments will be first adjusted towards LPSC, then outstanding dues and then the current dues. This will be helpful in creating better understanding and hence reducing the disputes among electricity generators and buyers.

The surcharge rate applicable for late payment by discoms is a deterrent for delayed payments and only inculcates a disciplined approach to effect timely payments against energy bills. By seeking reduction of LPSC rates the discoms are only implying that this disciplinary check should be removed so that they can make delayed payments and not have to pay any penalty for it too.

LPSC rates should not be linked with loans availed by generating companies. LPSC is a penalty imposed for indisciplined approach whereas loan rates are linked to effective financial management of the generating company. A generating company whose account books are not in line with the lenders strict quality requirements can not avail better credit rating and hence cheaper loans.

The cheaper loans are not available solely to the generating companies but to all credit worthy entities in any economic sector. Discoms too can avail these cheaper loans for their working capital requirements and direct banks to settle their energy bill dues instantly on the day of issuance of energy bills. Discoms are already allowed a 2% rebate on timely payment against energy bills. So if they seek reduction in their billing costs, they may rather avail these cheaper loans and save 2% by effecting timely payments to generators.

The savings by way of earning rebate rather than by seeking reduction of LPSC rates will be much more and also provide a much required efficiency into the power markets which are largely being effected due to poor payment practices of Discoms.

It is evident from above submission that the LPSC or Interest on Delayed Payment of Taxes is universally present across various acts in India is not a sole part of the Electricity Act/CERC regulations. Therefore, it is not only the discoms but various entities governed by respective acts in applicable sectors are complying with the necessary provisions. Under such circumstances, **it would not be prudent to do relax the liability of discoms from such compliances whereas continue the applicability of same interest rates under a separate compliance.**

Rebate of 2 % adds burden to generators as being much higher than the rest of the industry. It's a humble request to the Commission to consider reduction of allowed rebate percentage.

## **10.Environmental Concerns and Fuel Diversion to Efficient Plants:**

MoP has already discussed and advised transfer of coal from less efficient to more efficient plants through coal tolling scheme. In a similar way staff paper may advise that gas allocation to more efficient and environmentally less polluting stations be prioritized over less efficient plants. Similarly, plants following environmental norms should be incentivized in form of some additional returns to plants following environment safety norms and other plants should face some disincentives.

## **11.Benchmarking of Capital Cost:**

The consultation paper has noted that in order to benchmark the capital cost of various generating stations (sample size 30) of varying vintage, unit size, fuel type etc. was analyzed. The Normative Value of the capital cost per MW approved by the Commission during the year of Commissioning of respective sample plants was calculated by applying the normalization factor of 6.85%. The normalization factor was computed taking average of the WPI inflation from the FY 1988-89 to FY 2013-14. It was observed that the distribution of capital cost per MW is denser near the Mean and Median i.e. Rs.6.30 Crore/MW. However, the standard deviation for the above distribution was as high as Rs.2.44 crore/MW. It showed that the Capital Cost per MW of the sample plants varied from Rs.3.87 Crore/MW to Rs.8.74 Crore/MW.

Regarding this we have following to submit:

- 11.1. Benchmark cost will vary from region to region and from project to project due to site-specific problems, manpower scarcity, non-availability of resources, location, weather, environment issues, etc. So, it is difficult to arrive at a single benchmark cost for projects in different regions.
- 11.2. The risks associated with every project are unique and the project cost varies because of above factors. Hence comparing it with a national benchmark may not be correct.
- 11.3. The operating norms are being tightened by CERC across various regulations but the CPI/WPI indexes have been increasing over the years. Hence we request to keep provisions for proper indexing in the tariff regulation.
- 11.4. So, instead of benchmarking all parameters and making them normative on basis, CERC may **continue with practice of considering actual mix of parameters in current regulations which uses a mixture of actual and normative allowances.**

## **12.NAPAF:**

The Hon'ble Commission has noted in the staff paper that in control period 2014-19, the target availability has been determined based on the data available for the past years. The recovery of fixed charges was linked to availability. The availability of 85% is specified with exceptions of specific plant wise availability. The existing availability norms are uniform for all the generating stations. Now with the increase of private participation, access to imported fuel by private developers and technological improvement may have improved the availability. The issue of different availability norms for existing and new plants can be contemplated.

We agree here with the Commission's views that increasing capacity addition has led to more competition for fuel and plants have been facing fuel shortages. The same is also applicable for gas based generation wherein the fuel supply is increasingly exposed to the behavior of the gas fields which is hard to predict. This has led to even full scale commissioned plants lying idle in want of fuel gas or operating at part load and incurring loss of AFC. Such a situation requires that CERC may visit the NAPAF norms separately for individual plants that are facing continued fuel shortages and relax the operating norms of such plants.

In particular, for ONGC Palatana Project we would like to add that Palatana project has been commissioned successfully but has been fuel supply deficit due to Force majeure condition of fuel supplier. The force majeure condition hampering the fuel supply is Unanticipated Adverse Behaviour of Sellers Gas Reservoir. Palatana Project has hence been operating at part load with PAF of 79.22%, 56.03%, 66.76% and 64.05% respectively in FY 14-15, FY 15-6, FY 16-17 and FY 17-18 respectively. The plant is incurring huge AFC losses despite CERC having relaxed the NAPAF to 76% in its tariff order.

The problems are further compounded by the fact that Palatana has no option to secure gas from anywhere else as it is located in a remote location in Tripura which is isolated from mainland India.

Therefore, it is requested to Hon'ble Commission **to conduct an in-depth analysis of fuel supply constraints to such plants and allow and extended relief in NAPAF** and other operating norms to such plants

struggling with fuel constraints as considered by honorable Commission for some plants like NEEPCO

### **13. Auxiliary Energy Consumption and Station Heat Rate:**

Various factors like increase in upcoming renewable power, deducing technical minimum, fuel shortage is adding to lowering of PLF while increasing actual Heat rate and Aux. Consumption above the permitted normative level.

In case of some gas based power generators (like OTPC and Ratnagiri) there is need of equipments like Gas Booster Compressor (GBC) which consumes power and adds to Auxiliary consumption. The actual Auxiliary Energy Consumption for such gas based power plants comes out to be 4-5%.

Same may be considered by Honorable Commission while deciding the normative Auxiliary Energy Consumption.

Also as rightly pointed out in the staff consultation paper that heat rate has a crucial impact on tariff and it should be decided based on various factors like load, age, fuel supply etc.

### **14. Non-Tariff Income:**

The staff paper has suggested that the income on account of sale of fly ash, disposal of old assets, interest on advances and revenue derived from telecom business may be taken into account for reducing O&M expenses. Present regulatory framework does not account for other income for reduction of operation & maintenance expenses. However, in case of

transmission licensee, the income earned from telecom business are adjusted in the billing separately. The principle of treatment of other income as applicable in case of transmission can be extended for the generation business.

We would like to submit that:

14.1 Such Non-Tariff Incomes are miniscule in nature for generating stations whereas it may be substantial for transmission assets.

14.2 Such incomes are not a free return in any way and the generator has to expand efforts and manpower for earning any such returns.

14.3 Such earnings are part and parcel of working capital of generators, are already taxed and are in no way related to the beneficiaries. Any sharing will only lead generators to not make many efforts to gain on such grounds.

14.4 Any such clause will also create a confusion regarding returns/dividends from any investments in other businesses and hence CERC is requested to not introduce any such clause for generating stations.

## **15. Mirroring Location Marginal Pricing in Tariff to Generators under regulated regime**

15.1. By setting up power plant at Palatana in Tripura, ONGC Tripura Power Company (OTPC) has brought numerous benefits to the region. Apart from investments to the tune of Rs 10,000 crores in the project and related infrastructure of gas and transmission lines, there has been a significant improvement in meeting the demand of the region, in bringing down system losses and applicable system charges of the region.

15.2. In the financial year prior to the commissioning of the unit in January 2014, i.e. in FY 2012-13, the demand and supply of energy in North Eastern region was 11,566 MUs and 10,718 respectively leading to a deficit of 7.3%. In the financial year subsequent to the commissioning of the station in March 2015, i.e. in FY 2015-16, demand of the region had swelled to 14,488 MUs, i.e. an increase of more than 25% since FY 2012-13. The energy availability in FY 2015-16 was 13,735 MUs with a deficit of about 5.2%. OTPC generated 3479 MUs in FY 2015-16 contributing 25% to the energy availability in the year.

15.3. Since, the commissioning of the plant, the POC charges and losses of the region have also come down. Average POC charges for North Eastern states was 12.82 paisa/unit in the quarter October - December 2013, i.e. the period just before the commissioning of first unit. In the period subsequent to commission of the station in March 2015, i.e. May-June 2015, the average POC charges of the North Eastern states was 11.58 paise/unit, i.e. a reduction of about 10%. Similarly, the POC losses of the region has come down from 1.31% in last week of December 2013 to about 1.11% in last week of December 2017.

15.4. The pricing of electricity based on transmission losses, charges and congestion is widely used internationally. Successful power markets like Pennsylvania-New Jersey-Maryland Interconnection (PJM), New York ISO (NYISO), California ISO (CAISO), Electric Reliability Council of Texas (ERCOT), Midcontinent Independent System Operator (MISO) etc. The underlying principle of locational marginal pricing is that the energy



price varies from one location to another location in the presence of congestion and loss in the system. Theoretically, Locational Marginal Pricing has three components viz.

15.4.1. **System Marginal Price (SMP)** – It is the incremental price of energy for the system given the current dispatch and load in the system. SMP is same price for every bus/location in the system

15.4.2. **Congestion Component** – It represents price of congestion for binding constraints. In case of no congestion, it is zero and varies by location if system is constrained. Congestion price is paid by the load to the generator.

15.4.3. **Marginal Loss Component** – It represents price of marginal losses. Transmission losses are priced according to marginal loss factors which are calculated at bus. It represents percentage increase in system losses caused by increase in power injection or withdrawal. This too varies by location and load pays Loss Price to the generator.

15.5. In India, with respect to LMP, SMP and congestion component are already getting considered by virtue of long term power purchase agreements and laying of transmission lines for new power projects. However, the savings in loss component is yet to be factored in. The generators who have set up plants in remote locations in North East serving the loads of the region should be appropriately compensated for bringing down losses, POC charges and congestion. In this regard, the Commission may consider providing tariff component to generators under regulated regime for:

15.5.1. Reduction of losses in the system

15.5.2. Reduction of POC charges applicable for discoms

15.5.3. Reduction of congestion

15.6. It is submitted that the present paper issued by the staff of the Commission is forward looking and would take of emerging market realities.