

To

Date: 14th Feb 2024

**The Honourable Chairman and his Companion Honourable Members,
Central Electricity Regulatory Commission,
Chanderlok Building , 36, Janpath , New Delhi 110001.**

Dear Sirs,

Sub: Comments / Suggestions on CERC's published Draft 2024-29 Tariff Regulations .

- Ref: 1. CERC's Public Notice No. L-1/268/2022/CERC dtd 26.5.2023 for comments on Approach Paper
2. Comments submitted to the CERC on 31st July 2023 on Approach Paper by the Undersigned
3. CERC's Public Notice No. L-1/268/2022/CERC dtd 4.1.2024 for comments on Draft Regulations

At the onset, I would like to thank the Commission for incorporating many comments, feedback and suggestions received on the Approach Paper, including from the undersigned vide Reference 2 above, in the Draft 2024-29 Tariff Regulations published on 4.1.2024, and making it more responsive to the needs of the Electricity sector and trying to balance the interests of the end consumers and whole sale sellers / transmission companies, impacting almost all the citizens of India.

In the above context, further to my comments dated 31st July 2023 on Approach Paper, you may find my below listed comments / suggestions useful while finalizing the 2024-29 Tariff Regulations

- 1) Draft Regulation 2(1) and its first Proviso – Scope and extent of Application of Regulations:
“Investment Approval and Award of Main Works before 31.3.2024” is a more reliable and important milestone than proposed milestone of “*financial closure before 31.3.2024*”, to establish that old planned generating stations whose agreements were signed before 5.1.2011 are likely to start generation during 2024-29 or not.
Next thermal power expansion cycle in India is about to start to meet the rising Indian power demand, even in the context of RE generation growth and Net Zero commitments. Therefore, considered involvement and agreement of beneficiaries about the present day techno economic viability of these Pre-2011 planned regulated generation projects during 2024-29 period is very much essential, in the true spirit of the Electricity Act and also to avoid disputes at a later date.
Accordingly Draft Regulation may be modified as below
*Provided that any generating station for which agreement(s) have been executed for the supply of electricity to the beneficiaries on or before 5.1.2011 and the **Investment Approval and Award of Main Works** for the said generating station has not been achieved by 31.3.2024, such projects shall not be eligible for determination of tariff under these regulations unless fresh consent **along with agreed ceiling tariff** from beneficiaries is obtained and furnished.*
- 2) Draft Regulation 3(7) – Definition of Auxiliary Energy Consumption including integrated mines :
Generally integrated coal / lignite mines are located in remote areas away from stable/ reliable power supply sources, but they are always nearer to the thermal power station to which they are supplying coal/lignite by virtue of location, where a reliable grid supply source is already available. But due to the exclusion of integrated mines power consumption from AUX , in the proposed Draft first proviso to Regulation 3(7), integrated mines are forced to avail power supply from long distances and also at costly DISCOM tariff purely due to regulatory barrier, thereby increasing the

power input cost going into fuel input price as well as reducing reliability of power supply. Just like flue gas desulphurization (FGD) system for output flue gas from TPPs, sewage treatment plants for input water to TPP and external coal handling plant jetty / berths in port for input fuel to TPP, which are proposed to be *considered separately in AUX* in Draft Regulation 3(7), integrated mines also provide the fuel (coal/lignite) to thermal power plants and such mines power consumption should be permitted to be drawn from TPPs as AUX power consumption and technically accounted separately with suitable commercial adjustment between the mines and TPP.

Further vide Electricity (Amendment) Rules 2024 notified in Gazette on 10.01.2024, by Min of Power, a Rule 21 has been amended to say that “..... a bulk consumer having load of not less than twenty five Megawatt in case of ISTS shall not be required to obtain license under the Act for establishing, operating or maintaining a dedicated transmission line to connect to the grid

In view of the above two facts, Draft Regulation 3(7) may be modified to help thermal power stations with integrated mines to arrange reliable and cheaper power their integrated mines, where ever Generating companies find it techno economically feasible and practical to do so,

(7) 'Auxiliary Energy Consumption' or 'AUX' in relation to a period in case of a generating station means the quantum of energy consumed by auxiliary equipment of the generating station, such as the equipment being used for the purpose of operating plant and machinery including switchyard of the generating station and the transformer losses within the generating station, expressed as a percentage of the sum of gross energy generated at the generator terminals of all the units of the generating station;

Provided that auxiliary energy consumption shall not include energy consumed for the supply of power to the housing colony and other facilities at the generating station and the power consumed for construction works at the generating station ~~and integrated mine(s);~~

*Provided further that auxiliary energy consumption for compliance with revised emission standards, sewage treatment plant, ~~and~~ external coal handling plant (jetty and associated infrastructure) **and integrated mine(s) consumption (wherever it is feasible and the generating company desires to avail such power source)** shall be considered separately **and either allowed to be claimed from beneficiaries as per applicable regulations or borne by the generating company.***

3) Draft Regulation 3(48) – Definition of Landed Fuel Cost:

For better clarity of / accounting by all concerned and dispute free implementation, Draft Regulation defining O&M Expenses may be modified as below:

(48) 'Landed Fuel Cost' means the total cost of coal (including biomass in case of co firing), lignite or the gas/naphtha/liquid fuel delivered at the unloading point of the generating station and shall include the base price or input price, washery charges wherever applicable, transportation cost (overseas or inland or both) and all handling costs upto Power station Boiler, charges for third party sampling and applicable statutory charges;

4) Draft Regulation 3(56) – Definition of O&M Expenses:

For better clarity of / accounting by all concerned and dispute free implementation, Draft Regulation defining O&M Expenses may be modified as below:

(56) 'Operation and Maintenance Expenses' or 'O&M expenses' means the expenditure incurred for operation and maintenance of the project, or part thereof, and includes the expenditure on regulated entity's manpower engaged for performing regulated activity, maintenance, repairs and maintenance spares consumed in regulated activity, other spares (

of capital nature valuing less than Rs. 20 lakhs) **consumed in regulated activity**, additional capital expenditure of an individual asset costing up to Rs. 20 lakhs **which are required for performing regulated activity only**, consumables, insurance, overheads **including corporate and regional office expenditure allocated / apportioned to the regulated business activities of the company only** and fuel other than used for generation of electricity. **Further, It excludes Water Charges, Security Expenses, Capital Spares Consumption, Statutory Charges recoverable under Regulation 77 , any Donations, CSR Expenditure , any Performance Incentive and any Miscellaneous expenses.**

5) Draft Regulation 3(64) – Definition of Prudence Check:

For better clarity of all concerned and dispute free implementation, Draft Regulation defining Prudence check read with draft Regulation 20(1) may be modified as below:

(64) 'Prudence Check' means scrutiny of the reasonableness **and requirement** of any cost or expenditure incurred or proposed to be incurred, **for performing the regulated activity**, in accordance with these regulations by the generating company or the transmission licensee, as the case may be;

6) Draft Third proviso to Reg. 9(1) – Application for tariff determination with audited capital cost :

Definition of the term “Auditor Certificate” used in third proviso to the Draft Regulation 9(1) has been **left out** in Regulation 2. This new definition may be included as below:

(9) 'Auditor Certificate' means any certified data, statement, filled in tariff form / format submitted to the Commission under any provision of Regulations, mandatorily containing system generated Unique Document Identification Number (UDIN) of a practicing auditor from mentioned on such certificate, statement, tariff form / format, as per relevant Min of Corp Affairs Gazettes / ICAI or ICMAI Guidelines.

7) Draft Regulation 19(2) – Capital Cost :

Generating and Transmission Companies while establishing Generating Stations and Transmission systems are required to get many indirectly related infrastructure improvement works done from many government departments / organizations through Deposit Works like laying/widening of Roads for better access to project, laying of Railway lines under customer funding model for easier coal transportation, building of dams for water, Removal/Diversion of existing utility infrastructure from the site, building of other social infrastructure for area development etc.

Even though the assets created out of these Deposit works expenditure are not owned by the Generating / Transmission Companies, these assets are capitalized on the books of the Gencos/ Transcos upto COD/DOCO due the enabling Regulations of CERC.

This creates an anomalous situation wherein the Owner of the asset like PWD/NHAI/Railway/Utility/Irrigation Dept etc capitalizes the asset on their books and Gencos/Transcos also capitalize such deposit expenditure in the capital cost of TPP or Transmission system upto COD/DOCO.

Further, Ministry of Power , Gol has notified the Carbon Credit Trading Scheme 2023 w.e.f 30th June 2023, which is an important part of India’s commitments to UNFCCC to meet climate goals.

In view of the above, Draft Regulation 19(2) may be modified as below

19. Capital Cost: (2) The Capital Cost of a new project shall include the following:

(a) The **Capital** expenditure incurred or projected to be incurred up to the date of commercial operation of the project, **for creation of assets required for performing regulated activity as**

identified in Investment Approval and which are owned by the Generating Or Transmission Company ;

(j) Capital expenditure incurred towards railway infrastructure **owned by the Generating Company** and its augmentation for transportation of coal up to the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;

(o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under the Perform, Achieve and Trade (PAT) scheme **and Carbon Credit Trading Scheme (CCTS)** of the Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT / **CCTS** scheme with the beneficiaries.

8) **Draft Regulation 30 – Return on Equity :**

Forum of Regulators **Report** on “Analysis of Factors Impacting Retail Tariff and Measures to Address” published in April 2021 under the aegis of CERC has clearly identified that “*In the entire value chain, transmission business has the lowest risk. The RoE for transmission companies should therefore, be reviewed immediately*”.

In fact the Commission has acknowledged the above fact in Approach Paper (at 4.16) and also in Explanatory Memorandum (at 12.5.9). However the proposed differential RoE of 15%, 15.5%, and 17% for new Transmission, Generation and Storage Hydro assets is not reflecting the starkly contrasting risks taken by the above value chain players. Infact there is a need to incentivize the long duration energy storage for RE integration/assimilation into the grid in a much larger way.

Further, Linking of 0.25% RoE to 1% per minute Ramping, continued in 2024-29 period at Draft fourth proviso to Regulation 30(3), which was introduced for the first time in 2019-24 period, is no longer relevant and needs to be dropped, as its effectiveness has not been established and plants could neither be incentivized to upgrade nor disincentivized for practical reasons with that provision even with voluminous data capture and analysis by RPCs.

It is worthwhile to note that during the last 5 years lot of enabling changes have already taken place like

- a. CEA has notified CEA (Flexible Operation of Coal based Thermal Power Generating units) Regulations , 2023 w.e.f 31st Jan 2023, wherein it has been made mandatory to achieve certain ramp rates and minimum power levels.
- b. CERC has notified IEGC 2023 , where in at Regulation 45(9), it is mandatory to declare minimum ramping rates while scheduling the Generating stations.
- c. CERC has already proposed at Draft Regulation 19(2)(p) to allow Capital Expenditure to be incurred for required plant modifications to meet the above CEA Regulations.

In view of the above, Draft Regulation 19(2) may be modified by the Commission as below

"30 xxxx

(3) Return on equity for new project achieving COD on or after 01.04.2024 shall be computed at the base rate of ~~15.00~~ **12.5%** for the transmission system, including the communication system, at the base rate of ~~15.50~~ **14.5%** for Thermal Generating Station and for ~~run-of-river~~ hydro generating stations at the base rate of **16.5%** , for pumped storage hydro generating stations at the base rate of ~~17.00~~ **17.5%**;

Provided that return on equity in respect of additional capitalization beyond the original scope, including additional capitalization on account of the emission control system, Change in Law, and Force Majeure shall be computed at the base rate of one-year marginal

cost of lending rate (MCLR) of the State Bank of India plus 350 basis points as on 1st April of the year, subject to a ceiling of 14%;

Provided further that: xxxx

iii. in the case of a thermal generating station:

a) ~~rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate as specified under Regulation 45(9) of IEGC Regulations, 2023.~~

b) ~~an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate specified under Regulation 45(9) of IEGC Regulations, 2023, subject to the ceiling of additional rate of return on equity of 1.00%:~~

9) Draft Regulation 36 , 46 – Operation and Maintenance Expenses:

The Commission has stated in the EM (at 15.5) that CAGR of Actual normalized O&M expenses during 2017-23 for Transmission is **3.35%**, Hydro Generation is **3.05%** and Thermal Generation is **2.94%** only , which are less than CERC's **allowed Escalation of 3.5% during 2019-24** Period.

Even with the availability of clearly quantified trend well within the norm as above, It is not clear why the **Commission has proposed 5.89% Escalation** (derived on 60:40 weightage of WPI , CPI Indices) **instead of continuing with 3.5% Escalation** for Regulatory Certainty. WPI, CPI Indices are much Generic Indices applicable for whole Economy and may not reflect the Escalation applicable for Electricity Sector's O&M Expenses.

Most of the New Thermal Power capacity added in last 15 year in the country, as well as all upcoming Units in pipeline are of 660 MW / 800 MW Super critical Unit size only. In fact 800 MW Units are been commercialized during 2017, 2018, and 2019 itself. However, the Commission has **chosen only 3 Stations of 660 MW unit size for arriving at O&M norms and extrapolated the same for 800 MW Stations @90% of 660 MW stations , instead deriving from 800 MW Stations** actual submitted O&M data.

Due to diligent and scrupulous efforts of the Commission for promoting efficiency and economic operations, Transmission O&M norms have in fact greatly reduced which can be seen in the fact that **Even the proposed Transmission O&M norm for FY 2028-19 is less than what is being allowed now in FY 2023-24** for All types of Transmission system Bays and Lines.

However the same results are not visible in Generation sub sector and O&M norms are on increasing trend , if not stagnant after adjustment for inflation, reducing Man - MW Ratio , efficiency gains etc, which needs further examination by the Hon'ble Commission. Peculiarly It is also observed that , **Derived figures shown in O&M norm Calculations in Explanatory Memorandum Tables 15,16,17,20 (all pertaining to NTPC stations) are not matching with figures given in the published Draft Regulations 36(1)(1).**

None of the 50,000 MW + planned FGD systems ordered for thermal fleet have entered operational phase (except one or two) and **FGD Operational data is accordingly not available** with the Commission. In fact No FGD supplementary tariff order has been issued by the Commission till date. In view of the above, it is **not advisable to frame hard coded** Regulations for **FGD O&M norm of 2% of admitted capital cost** , as proposed in Regulation 36(1)(9). It can be notified subsequently through amendments after availability of sufficient data.

In view of the above, Draft Regulation 36,46 on **O&M Norms may be Reviewed and Errors as explained above may be Corrected** by the Commission.

I wish to express my gratitude once again for seeking the stakeholder suggestions and I hope that my suggestions are of use to the Commission while finalizing these Regulations to realize fair, equitable and affordable whole sale Generation and Transmission Tariff in 2024-29 period.

Yours faithfully,



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