TATA

Date: 20.02.2024

To,

The Secretary,
Central Electricity Regulatory Commission (CERC)
3 & 4th Floor, Chanderlok Building.
Janpath, New Delhi-110001

Sub: Submission of Comments/Suggestions on Draft Central Electricity Regulatory Commission (Terms and Conditions of Tariff), Regulations, 2024 for the tariff period from 01.04.2024 to 31.03.2029.

Dear Sir,

This is in reference to the Public Notice issued by the Hon'ble Commission dated 30.01 2024 in Reference No. L-1/236/2022/CERC wherein the Hon'ble Commission has sought for the Comments/ Suggestions on the Draft Regulations, 2024 latest by 20.02.2024.

In compliance with the aforementioned, please find attached Comments/ Suggestions along with Annexures on behalf of Tata Power for its regulated entities, for kind perusal and consideration of the Hon'ble Commission.

Yours Sincerely,

Pankaj Prakash
Head - Regulatory

Encl: As Above.

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Comments on Draft Notification on Terms and Conditions of Tariff Regulations: Tariff Period 1.4.2024 to 31.3.2029

BY

The Tata Power Company Limited

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The Tata Power Company Limited's VIEWS ON Draft Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024

1. **Regulation 70 Clause C sub-clause (b)**

70 C(b) Thermal Generating Stations achieving COD on or after 1.4.2009:

(i) For Coal-based and lignite-fired Thermal Generating Stations:

For 200/210/250 MW Sets. : 1.05 X Design Heat Rate (kCal/kWh)

For 500 MW Sets and above: 1.04 X Design Heat Rate (kCal/kWh)

Where the Design Heat Rate of a generating unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero per cent make up, design coal and design cooling water temperature/back pressure.

Our Views and observations

- **Historical Perspective/Tariff Policy to be considered while specifying SHR Norms for Coal based Generating Stations:**

As per the Explanatory Memorandum for 2024-29 Draft Tariff Regulations, the actual average SHR of all 500 MW coal based Generating Stations based on past data for 2018-19 to 2022-23 after taking into account the degradation factor/correction for degradation factor is indicated as 2388 kCal/kWh in Table 47 under para 18.5.1. Thus, the Average Heat Rate of 2388 kCal/kWh basically indicates that current performance level at Unit loading of 85%. The 500 MW units considered for above derivations consist of 500 MW Generating Stations regardless of their vintage/CoD.

"The Commission has reviewed the suggestions and comments received from various stakeholders. The Commission had sought the actual data for FY 2018-19 to FY 2022-23 from Central Generating Stations to assess actual performance vis-à-vis norms. The actual Station Heat Rate data as submitted by the Generating Stations after taking into account the degradation factor allowed for compensating the generating stations for lower loading in accordance with the provisions of Grid Code for FY 2018-19 to FY 2022-23 is given in the table below."

At lower loading/with deterioration the actual average Heat Rate is about 2477 kCal/kWh against corrected average of 2388 kCal/kWh as observed in the EM at Para 18.6.5. Thus, correctionof 89kCal/kWh for degradation of SHR has already been applied by the Hon'ble Commission and, hence the average of 2388 kCal/kWh represents the actual SHR at normative 85% PLF, which should be used for fixing the norm.

"18.6.5 The Commission observes that the average actual SHR has increased to around 2477 kCal/kWh from FY 2018-19 to FY 2022-23 vis-à-vis 2381 kCal/kWh recorded for the period from FY 2012-13 to FY 2016-17. This degradation of actual SHR can be attributable to the increased backing down of thermal generating stations to accommodate the rapid integration of renewable energy."

Therefore, in terms of para 5.11(f) of Tariff Policy, 2016 which stipulates operational norms should be efficient, relatable to past performance, capable of achievement and considering current

performance level as stated above, it is most humbly requested to fix ceiling limit of 2388 kCal/kWh for the 500 MW Generating Units regardless of CoD instead of 2375 kCal/kWh as proposed in the draft Regulations. Undoubtedly, considering the actual performance level, the SHR of 500 MW Units shall hover around 2388 kCal/kWh regardless of the vintage and therefore, any further rationalization/reduction in SHR would leave no scope for operational flexibility for thermal generating stations and shall be left to suffer.

This is also the finding of CEA at para 8.8 in its Report of Recommendations on Operation Norms for Thermal Power Stations for Tariff Period 2014-19 submitted with Comments on Draft Tariff Regulation 2014-19 that major factor for better actual SHR, apart from vintage is better O&M practices relevant extract of the same is reproduced below:

> *"8.8 From Table-7(b), it may be seen that the stations where the deviation is about 5 % are not confined to any specific utility or sector but are fairly widespread covering stations from private sector and state sector utilities. Nor are these stations restricted to any particular age group and include stations where most units are fairly old to stations with middle aged and new units.*
> *Similar analysis carried out by CEA in the year 2004 (while working out norms for the operating period 2004-09) based on 3 years operating data collected from large number of stations also yielded similar results and showed that the deviation of operating heat rate from design showed no correlation with the age or make of the units and old units from some of the utilities showed very low deviations."*

Further, the actual data for 2018-19 to 2022-23 in Table 47 of EM 2024 shows that average actual SHR for Pre-2009 stations is 2378 kCal/kWh whereas, for post 2009 stations the same is 2396kCal/kWh, against average of 2388 kCal/kWh. This also validates the above findings. Therefore, it is only fair that all generating stations are given the same ceiling norm of 2388 kCal/kWh.

Further, with regard to Units Commissioned on or after 2009, SHR Norm have been linked to their design efficiencies. Linking of SHR norm to design efficiency subject to Minimum boiler efficiency of 86% for Sub-Bituminous Indian Coal was mainly to build safeguard against the lower design boiler efficiency (lower than 86% compared to earlier boiler design efficiency of about 87%-88%) as per recommendations of CEA in previous three control periods. The same is evident from the Tabulation below and was done with an intention so that improved efficiencies are passed to end consumers.

S. No.	**Generating Stations 500 MW Series**	**Considering 2009 as base year for COD**	**Design Boiler Effeciency**	**Design GCV of Coal**	**Actual GCV Received as per compensation statement**	**Normative SHR under 2019 Regulations /Tariff Orders**	**Actual SHR as per EM2024**	**Normative SHR-Actual SHR**
1	Unchahar TPS, Stage- IV	Post	85.1%	NA	NA	2359	2431	-72
2	Simhadri-II	Post	84.84%	3300	3059	2359	2400	-41

S. No.	Generating Stations 500 MW Series	Considering 2009 as base year for COD	Design Boiler Effeciency	Design GCV of Coal	Actual GCV Received as per compensation statement	Normative SHR under 2019 Regulations /Tariff Orders	Actual SHR as per EM2024	Normative SHR-Actual SHR
3	Mauda STPS stage I	Post	84%	NA	3036	2359	2459	-100
4	Dadri Stage-II	Post	85.00%	3500	NA	2363	2425	-63
5	Vindhyachal-V (1 X 500 MW)	Post	84.47%	NA	NA	2359	2347	12
6	Kahalgaon-II	Pre/Post	83.29%	2850	3165	2374	2380	-6
7	Korba Stage-III	Post	84.91%	3300	3784	2374	2340	34
8	Farraka Stage-III	Post	83.39%	3000	3716	2374	2453	-79
9	Vindhyachal-IV	Post	84.00%	3600	NA	2359	2352	7
10	Sipat -II	Post	85.85%	3300	NA	2390	2374	16
11	Vindhyachal-III	Pre	85.14%	3700	NA	2390	2375	15
12	Ramagundam-III	Pre	86.88%	3400	3469	2390	2326	64
13	Simhadri-I	Pre	87.27%	3300	3081	2390	2434	-44
14	Vindhyachal-II	Pre	87.77%	3700	NA	2390	2379	11
15	Rihand-I	Pre	86.99%	4000	NA	2390	2340	50
16	Talcher Super Thermal Power Station Stage-I & II (pit-head);Stage: 1 (2 X 500 MW): Stage: 2 (4 X 500 MW)	Pre	87.43%	3500	3145	2390	2396	-6
17		Pre	85.59%	3300	3207	2390	2394	-4
18	Maithon Power Limited	Post	87.80%	4671	3922	2326	2374	-48

(Excel file has been enclosed for the ease of reference)

***Data Source**: EM 2024, Tariff Orders, EMs issued for previous control period and Compensation Statement issued by RPCs for some of the Generating Stations.*

It may be evident from the above Table that boiler efficiencies for Units commissioned after 2009 have boiler efficiencies lower compared to boiler efficiencies of Units Commissioned before 2009 except for generators like MPL who have based their design on GCV declared in FSA without any grade slippage. Therefore, in order to build safeguard against the lower design boiler efficiency, boiler efficiency was capped to minimum of 86% for Units having declared boiler efficiencies lower than 86%. Also, it would be relevant to note that generators like MPL having designed boiler efficiency of 87%-88% commissioned after 2009 are struggling to perform to achieve stringent target of GSHR with poor quality of coal though the actual performance, say of MPL @ 2374 kCal/kWh, is better/close to actual performance of other 500 MW units. This is mainly because of poor coal quality which is universal issue and not within the control of generating stations.

For poor coal quality other generators with post 2009 COD have a comfortable margin of 1.8% (i.e. 87.8 – 86) in boiler efficiency as they have already captured coal grade slippage in boiler design efficiency. Thus, such generators having design boiler efficiency below 86% are being allowed GSHR with 86% minimum level. This has placed generators with higher boiler efficiency (without considering grade slippage) in a disadvantageous position, which amounts to discrimination. Coal quality issue is unlikely to improve in the near future and thus would severely impact generators which is beyond the control. The difference column in the above Tables indicates that barring few most of the stations which are linked to designed parameters and not to their actual performance are incurring losses and such losses shall further increase if current SHR norm is further reduced.

Even blending of imported coal for improving coal quality is also not a viable or cost-effective scenario to meet the design boiler efficiency or design heat rate as energy charges would almost double to achieve design GCV, thereby, penalizing end consumers with higher variable cost.

In this context, it is also relevant to note the observations of CEA that '*even with the same turbine generator, the unit heat rate could vary significantly at two different sites due to large variations in coal quality, cooling water temperature, etc*'. With regard to Heat Rate it has also observed following in the CEA, for the first time, in its recommendations i.e. "Norms of operation for the tariff period 2009-14" are reproduced below:

> *"4.3 The operation efficiency or heat rate and other performance parameters of a thermal power station depend on a number of factors which can be broadly classified as follows:-*
> *a) Technology and Equipment*
> *b) Ambient conditions*
> ***c) Fuel quality***
> *d) Plant operation and maintenance practices.*
>
> *Thus any benchmarking exercise has to consider these factors for normative operational performance.*
>
> *…"*

In light of above observations of CEA, Coal quality i.e. fuel quality plays a pivotal role in overall heat Rate of the generating stations and therefore, it is very important to factor such constraints/dependencies so that some Generating Stations are not left to suffer on account of poor coal quality, while others have built margins for the same, which is a universal issue and not within the control of Generating Stations. Therefore, to comply with the recommendations of CEA i.e., passing on the benefits of improved efficiencies and, simultaneously, protecting the losses to Generating Stations because of poor coal quality which is fair and equitable, SHR Norm may kindly be considered as lower of 2388 kCal/kWh and actual Heat Rate during the year subject to minimum of the SHR norm arrived at by design parameters for Units having COD on or after 01.04.2009.

This would mean that if actual SHR is between the minimum and ceiling limit of SHR norm, actual SHR shall be considered for the purpose of billing and recovery of Energy Charges. Norms higher than ceiling limit would be penalized and savings if any on account of improved norms compared to minimum SHR norm would be passed on as per existing methodology.

For Units having, COD before 01.04.2009, SHR norm of 2388 kCal/kWh may be specified. Even if it is considered that 2388 kCal/kWh does not factor in the heat rate degradation as in Para 18.5.1 of EM the Hon'ble Commission has stated that, "*The actual Station Heat Rate data as submitted by the Generating Stations after taking into account the degradation factor allowed for compensating the generating stations for lower loading",* there is no basis of doing an ad-hoc adjustment without actual data to reduce the set average. Further, reliance on CEA's recommendation is also not correct as CEA has not substantiated or made public the basis of and detailed data for its recommendation, but Hon'ble Commission has all the data, which as stated above indicates actual average to be 2388 kCal/kWh.

- **<u>Reduction of Operating Margin from 5% to 4%</u>**

It is observed that the Hon'ble Commission has reduced the operating margin from 5% to 4% based on CEA recommendations. Neither the Hon'ble Commission nor the CEA has elaborated in detail the reasons to reduce the margin from 5% to 4%. As per the Explanatory Memorandum for Draft Regulations at para 18.6.5 the Hon'ble Commission observes the following:

> *"The commission observes that the average actual SHR has increased to around 2477 kCal/kWh from FY 2018-19 to FY 2022-23 vis-à-vis 2381 kCal/kWh recorded for the period from FY 2012-13 to FY 2016-17. This degradation of actual SHR can be attributable to the increased backing down of thermal generating stations to accommodate the rapid integration of renewable energy."*

In this regard, following are our comments for kind consideration:

i. In our humble submission RE penetration is mostly visible in the last two years and hence, the impact of such degradation for the entire Control Period would be negligible. Further, as brought out above, the degradation has already been factored in SHR compensation in EM. Therefore, in our view the data represents the ideal loading condition, and, hence, compensation need not be factored over and above it.

ii. The proposed reduction of the operating margin from 5% to 4% in the CEA's Recommendations appears to be a guesstimate without any detailed elaboration/figures. This is also corroborated from the fact that as per EM at Table 47, the actual average SHR of 500 MW Generating Stations after correction for degradation is indicated as 2388 kCal/kWh whereas SHR norm for typical 500 MW unit if computed with minimum boiler efficiency of 86% and operating margin of 4%, works out to 2352 kCal/kWh [(1945/86%) x 1.04]. The SHR norm of 2352 is much lower compared to actual performance level of 2388 kCal/kWh. Operating Margin of about 5.6% is required to match it with current performance level of 2388kCal/kWh.

iii. As per the data published in the EM at Table 47, the operating margin seems to be about 5.54% for 500 MW Units compared to their Normative Heat Rate as Tabulated below for ready reference of the Hon'ble Commission. This further validates our above observation that Operating margin of about 5.6% is required to match the current performance level.

Plants as per Table 47	FY 19	FY 20	FY 21	FY 22	FY 23	Average	Normative SHR	Normative SHR without Margin	Deviation from Normative (Actual SHR w/o operating margin - Normative SHR w/o Operating Margin)/(Normative SHR w/o Operating Margin)					Average
	i	ii	iii	iv	v	Avg	vi	vii	FY 19	FY 20	FY 21	FY 22	FY 23	Avg
Dadri Stage-II	2415	2432	2463	2400	2414	2425	2364	2251	7.29%	8.04%	9.42%	6.62%	7.24%	7.72%
Farraka Stage-III	2503	2434	2400	2504	2424	2453	2374	2261	10.71%	7.65%	6.15%	10.75%	7.21%	8.50%
Kahalgaon-II	2399	2377	2375	2374	2376	2380	2374	2261	6.11%	5.13%	5.05%	5.00%	5.09%	5.28%
Korba Stage-III	2387	2346	2324	2341	2304	2340	2373	2260	5.62%	3.80%	2.83%	3.58%	1.95%	3.56%
Mouda Stage-I	2490	2504	2490	2430	2382	2459	2359	2247	10.84%	11.46%	10.84%	8.17%	6.03%	9.47%
Ramagundam- III	2352	2324	2327	2339	2286	2326	2390	2276	3.33%	2.10%	2.23%	2.76%	0.43%	2.17%
Rihand-I	2343	2329	2304	2370	2357	2340	2390	2276	2.94%	2.32%	1.22%	4.12%	3.55%	2.83%
Simhadri-I	2439	2445	2436	2439	2411	2434	2390	2276	7.15%	7.42%	7.02%	7.15%	5.92%	6.93%
Simhadri-II	2423	2383	2393	2412	2386	2400	2359	2247	7.83%	6.05%	6.49%	7.34%	6.18%	6.78%
Sipat -II	2409	2365	2387	2368	2343	2374	2390	2276	5.83%	3.90%	4.87%	4.03%	2.94%	4.31%
Talcher I	2386	2420	2430	2346	2398	2396	2390	2276	4.82%	6.32%	6.76%	3.07%	5.35%	5.26%
Talcher II	2376	2419	2427	2352	2397	2394	2390	2276	4.38%	6.27%	6.63%	3.33%	5.31%	5.18%
Vindhyachal-II	2381	2387	2373	2387	2366	2379	2390	2276	4.60%	4.87%	4.25%	4.87%	3.95%	4.51%
Vindhyachal-III	2376	2387	2361	2385	2365	2375	2390	2276	4.38%	4.87%	3.73%	4.78%	3.90%	4.33%
Vindhyachal-IV	2376	2358	2334	2355	2338	2352	2359	2247	5.76%	4.96%	3.89%	4.83%	4.07%	4.70%
Unchahar – IV	2411	2436	2465	2427	2418	2431	2359	2247	7.32%	8.43%	9.73%	8.03%	7.63%	8.23%
Vindhyachal-V	2354	2357	2331	2355	2335	2347	2359	2247	4.78%	4.92%	3.76%	4.83%	3.94%	4.45%
														5.54%

The approach of providing operating margin is to have sufficient operational flexibility and, therefore, tightening of margin further would severely impact finances of generating stations leading to losses with each additional unit generated. With further squeezing of operating margin, the loss is going to get wider for the generating station even after following the state of the art O&M practices. In light of above views, we most humbly request the Hon'ble Commission to at least continue with the existing operating margin of 5% though operating margin of 5.6% is required as elaborated above. Accordingly, operating margin for smaller units may be increased from 5% to 6%.

- **<u>Need for considering compensation for the degradation of Norms due to part load operations due to replacement of thermal Power with RE as per RE Bundling Scheme/ or mandate under RGO.</u>**

The Hon'ble Commission in EM-2024 in Para 18.6.5 has observed that it is in the process of specifying compensation mechanism to compensate for degradation of Norms due to increase part load operations.

"18.6.5 ..... The Commission, to negate the financial implications on the generators due to part load operations, had already specified a compensation mechanism for degradation in Norms due to part load operations under sub-clause (6) of Regulation 6.3B of the IEGC, 2010. <u>The Commission, in accordance with IEGC, 2023 is also in the process of specifying a fresh compensation mechanism based on CEA's recommendations, which will be sufficient to compensate for the degradation of Norms due to increased part load operations</u>.

However, it is noteworthy to mention that apart from part load operations on account of lower requisitions by beneficiary, loading of Units shall further go down on account of bundling of RE power with thermal as per RE bundling scheme of MoP GoI/Complying with Renewable Generation Obligation (RGO) etc. Accordingly, impact on Operational Norms for part load operations shall further increase which needs to be considered while specifying the compensation mechanism for part load operations due to lower loading by beneficiaries and on account of replacement of thermal power with RE in view of such RE bundling scheme/mandate for RGO etc. It is humbly requested to accommodate and clarify the same in final regulations.

- **<u>Need for Relaxation of SHR Norms after installation of 'In Combustion Modification' in compliance to revised NOx emission level.</u>**

In Combustion Control System' (Primary Method) for NOx control consists of following major systems:

a) Low NOx burner (LNB) / Low NOx Burner tip

b) Closed Coupled Over Fire Air (CCOFA) System

c) Separated Over Fire Air (SOFA) System

d) Combustion Optimization

The Separated Overfire Air (SOFA) System is adopted for air staging & to achieve precise stoichiometric control that is crucial for minimizing NOx emissions. With installation of SOFA System, combustion air staging is done, which shall increase Un-burnt Carbon (UBC) in Bottom Ash and Fly Ash leading to reduction in Boiler efficiency and increase in Unit gross heat rate.

The increase in un-burnt carbon in Bottom Ash and Fly Ash depends on fuel ratio [ratio of fixed carbon to volatile matter in coal]. Higher the fuel ratio, higher will be increase in un-burnt carbon in Bottom Ash (BA) and Fly Ash (FA). Fuel ratio of Indian coal is very high.

Since allowed increase in UBC in BA and FA was very less and not achievable after implementation of 'In Combustion Modification', all Bidders requested TATA Power to increase this limit to meet the specified guarantee limit for increase in UBC in FA & BA. Considering Bidders inability, Tata Power had to revisit these limits and finally Amendment No. 2 to Technical Specification dated 11th Sept 2019 revised the limit for Un-Burnt Carbon Heat Loss [Drop in Boiler Efficiency] as 0.8% for Units at MPL:

Therefore, in view of above practical difficulty and literature available in this regard, there is a need for relaxation of normative SHR for sustainable and financially viable operations of De-NOx System by about 1%.

2. Regulation 70 Clause E (a)

(E) Auxiliary Energy Consumption:

(a) For Coal-based generating stations except at (b) below:

S.No.	Generating Station	With Natural Draft cooling tower or without cooling tower
(i)	200/210/250 MW series	8.50%
(ii)	300/330/350/500 MW and above	
	Steam driven boiler feed pumps	5.25%
	Electrically driven boiler feed pumps	8.00%
(iii)	600 MW and above	
	Steam driven boiler feed pumps	5.25%
	Electrically driven boiler feed pumps	8.00%

<u>Our Views and observations</u>

- **<u>Reduction of Auxiliary Power/Energy Consumption (AEC) from 5.75% to 5.25% for steam driven boiler feed pumps.</u>**

As per the EM-2024, Table 53, under para 20.5.1, the actual average AEC of 500 MW coal based Generating Stations based on data for 2018-19 to 2022-23 and after considering correction factor as per Grid Code is indicated as 6.25% for Units with Steam Driven BFP. Thus, Average AEC of 6.25% basically indicates that current performance level at Unit loading of 85%.

Therefore, in terms of Tariff Policy which stipulates operational norms should be efficient, relatable to past performance, capable of achievement and considering current performance level as stated above, it is most humbly requested to fix AEC for steam driven BFP for the 500 MW Generating Units as 6.25%. Undoubtedly, considering the actual performance level, any further reduction in AEC would leave no scope for operational flexibility for thermal generating stations and shall lead to financial hit.

Also, the Hon'ble Commission in the EM at Para 18.6.5 has attributed degradation due to higher RE penetration.

"18.6.5 The Commission observes that the average actual SHR has increased to around 2477 kCal/kWh from FY 2018-19 to FY 2022-23 vis-à-vis 2381 kCal/kWh recorded for the period from FY 2012-13 to FY 2016-17. This degradation of actual SHR can be attributable to the increased backing down of thermal generating stations to accommodate the rapid integration of renewable energy."

In this regard, it is reiterated that RE penetration is mostly visible in last two years and hence, impact of such degradation for entire Control Period in our view would be negligible. Further, as stated in EM the degradation has already been factored in AEC computation. Therefore, in our view the data of AEC represents the ideal loading condition, and, hence, compensation need not be factored over and above it.

In light of above, it is most humbly requested that existing AEC norms for 500 MW Generating Units with Steam driven BFP may kindly be continued with for 2024-29 tariff period instead of reducing it by 0.5% as proposed in the draft Regulations.

It is further requested that that the additional auxiliary energy consumption of coastal plants for usage of sea water varies from station to station depending upon the equipment installed and configuration, therefore, the Commission is requested to provide sperate regulation for allowance of auxiliary energy consumption for coastal plants on case-to-case basis.

In addition, regarding Regulation 71(C), for a Hydro generating station where headworks is spread over a large area, norms shall be defined on case-to-case basis based on past auxiliary energy consumption trend.

3. Regulation 70 Clause E (f)

(f) Norms of Auxiliary energy consumption for the emission control system (AUX_{en}) of thermal generating stations:

Name of Technology	AUXen (as % of gross generation)
(1) For reduction of emission of Sulphur dioxide:	1.0%
a) Wet Limestone based FGD system (without Gas to Gas heater)	

...

<u>Our Views and observations</u>

It may kindly be noted that CEA has provided separate recommendations for MPL plant based on the plant specific conditions. Further, with respect to Auxiliary Power Consumption, Hon'ble Commission in the FGD Order dated 11.11.2019 for MPL in Petition No. 152/MP/2019 had observed following:

> *"37. The Commission is yet to specify operational norms in respect of systems to be commissioned for meeting environmental norms. In absence of notified operational norms, Commission allows increased auxiliary consumption of 1.15% as recommended by CEA subject to revision based on the norms specified by the Commission, if any...."*

The reasons attributable to higher AEC requirements as per CEA approved feasibility report is because the Guaranteed values are in new and clean condition of FGD systems at TMCR load. Also, as the Hon'ble Commission does not allow any increase in APC for unit operation between 85% to 100% load, % APC of FGD system at these part load operating points will increase. Further, the Auxiliary Power of wastewater treatment plant/zero liquid discharge is not included which shall further increase above norm.

The Hon'ble Commission is guided by the recommendations of CEA while fixing Operational Norms of ECS, therefore, the project specific Auxiliary Power Consumption as recommended by CEA should have been considered instead of the generic Operational Norms.

4. Regulation 3 Clause 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 manpower, maintenance, repairs and maintenance spares, other spares of capital nature valuing less than Rs. 20 lakhs, additional capital expenditure of an individual asset costing up to Rs. 20 lakhs, consumables, insurance and overheads and fuel other than used for generation of electricity.

Provided that for integrated mine(s), the Operation & Maintenance Expenses shall not include the mining charge paid to the Mine Developer and Operator, if any, engaged by the generating company and the mine closure expenses.

Our Views and observations

Re: Inclusion of Capital Spares costing up to Rs. 20 Lakhs in the Normative Expenses for 500 MW units:

With regard to inclusion of Capital Spares up to Rs. 20 Lakh, it is submitted that, as per data provided in EM, it is observed that Capital Spares of about Rs 0.37 Lakh/MW is added in FY 2024-25 for 500MW Units which has been further escalated at rate of 5.89% to arrive at the Normative Capital Spares upto 20 Lakhs for subsequent years of the Control Period 2024-29. Derivation of 0.37 Lakh/MW is as follows:

Particulars	FY 2024-25 (Rs .lakh/MW)
Average arrived in the Explanatory Memorandum for 500 MW Units	25.85
O&M Norms allowed in Draft Regulation for 500 MW Units	26.22
Difference	0.37

However, historical data basis which norm of 0.37 Lakh/MW is considered has not been provided for analysis. It is humbly requested to share such data so that further comments, if any, may be submitted for kind consideration of the Hon'ble Commission. The amount of Rs. 0.37 Lakh/MW in lieu of Capital Spares and Add Cap up to Rs. 20 Lakhs in each case is inadequate. It is requested to increase the same to at least Rs. 0.75 lakh/MW.

In respect of Transmission Licensee, it is observed that nil addition has been made in O&M Norms towards Capital Spares upto Rs. 20 Lakhs as summarized below:

Particulars	Average FY 2020-21	Escalated @ 3.51 % to FY 2023-24 level	Norms for FY 2024-25 with escalation of 5.89% as per EM	O&M Norms in Draft Regulations	Diff
O&M expenditure per equivalent	22.06	24.47	25.91	25.91	0

Particulars	Average FY 2020-21	Escalated @ 3.51 % to FY 2023-24 level	Norms for FY 2024-25 with escalation of 5.89% as per EM	O&M Norms in Draft Regulations	Diff
(400 kV) AC bay					
O&M expenditure per MVA or per MVAr	0.195	0.216	0.229	0.229	0
O&M expenditure per equivalent (S/C. twin conductor) ckt-km	0.593	0.658	0.697	0.697	0

In view of above observations, we most humbly submit that in such scenario when nil amount is added in the normative O&M expenses for the Transmission Licensee, we request to please correct the inadvertent error else modify the definition of O&M expenses for Transmission Licensee wherein it specifies that O&M expenses is inclusive of 'other spares of capital nature valuing less than Rs. 20 lakhs.

Re: Inclusion of Additional Capital Expenditure costing up to Rs. 20 Lakhs in the Normative Expenses:

The Hon'ble Commission in the EM at Para 15.6.23 has observed following towards inclusion of Capital Expenditure below Rs. 20 Lakh under Normative Expenses:

> *"15.6.23 .....As mentioned in paragraph 15.5.4 above, the Commission, for the determination of O&M norms, has excluded O&M data from the COVID-affected years (FY 2020-21 and FY 2021-22). Nevertheless, the Commission has factored in the surge in inflation during the COVID-affected years to ascertain the escalation factor for the tariff period FY 2024-25 to FY 2028-29,* ***thereby compensating for the inclusion of additional capitalisation below Rs. 20 Lakh under normative O&M expenses.****"*

It seems, the Hon'ble Commission has considered inclusion of additional Capitalisation below Rs. 20 Lakh to be subsumed under the inflation given during the COVID years for arriving at the Normalized Expenses. In our view, it is not fair to overload/penalize Generating Stations particularly in the absence of detailed information regarding Add Cap below 20 Lakh. It is very difficult for Generating Stations to accommodate such expenses in Normative Expenses unless appropriate addition is made to Normative Expenses like allowances towards minor expenses. Such expenses are bound to be incurred and are visible more with vintage since minor items are required to be replaced more. Accordingly, it is requested to remove the Inclusion of *'additional capital expenditure of an individual asset costing up to Rs. 20 lakhs'* from the definition of O&M and to include only if the Normative O&M Expenses are suitably increased for Additional Capitalisation below Rs. 20 lakhs.

5. Regulation 36 Clause 1

36(1) Operation and Maintenance Expenses:

1) Thermal Generating Station: Normative Operation and Maintenance expenses of thermal generating stations shall be as follows:

(1) Coal based and lignite fired (including those based on Circulating Fluidised Bed Combustion (CFBC) technology) generating stations, other than the generating stations or units referred to in clauses (2), (4) and (5) of this Regulation:
...

Our Views and observations

Re: Escalation Rate Considered for COVID years:

The Hon'ble Commission during the normalization exercise of the actual data for covid years has considered factor of 2.94% based on the CAGR of the data from FY 2018-19 to FY 2022-23. In our humble opinion, the CAGR approach only considers the end value and the beginning value and the number of years. CAGR essentially does not capture the yearly variations during each year for the above period. In view of such limitations and to consider yearly variations, it is proposed to kindly consider the average of year-on-year percentage change to come up with the escalation factor which works to be 3.30% as demonstrated in the Table below using iterative calculations instead of 2.94% as proposed in the draft (as evident from EM at para 15.5.4) for escalation of 2019-20 expenses for arriving at expenses for 2020-21 & 2021-22 i.e., for COVID years as elaborated in the EM. Similar approach may kindly be followed for arriving at the O&M norms for transmission system. The Excel Computation are attached along with the Comments for the Hon'ble Commission's consideration.

Calculations for year-on-year percentage change in O&M expenses (Average Escalation for the period 2018-19 to 2022-23)

Generating Stations	FY 2019-20	FY 2020-21*	FY 2021-22*	FY 2022-23	Average
Simhadri TPS	2.13%	3.30%	3.30%	0.70%	2.36%
Talcher STPP	5.65%	3.30%	3.30%	4.18%	4.11%
Rihand TPS	1.99%	3.30%	3.30%	0.92%	2.37%
Sipat TPP Stage 2	4.97%	3.30%	3.30%	1.15%	3.18%
Dadri TPP Stage 2	11.54%	3.30%	3.30%	0.00%	4.53%
Ramakundam Stage 2	0.44%	3.30%	3.30%	0.00%	1.76%
Korba Stage 2	3.35%	3.30%	3.30%	0.00%	2.49%
Kahalgaon Stage 2	7.09%	3.30%	3.30%	3.65%	4.33%
Mauda Stage 1	5.18%	3.30%	3.30%	5.58%	4.34%
Farakka Stage 2	7.36%	3.30%	3.30%	0.00%	3.49%
Average	4.97%	3.30%	3.30%	1.62%	**3.30%**

Re: Escalation Rate Considered for escalation of Mid-Year Expenses to arrive at the Base Year i.e. 2023-24 Expenses:

It is noteworthy to mention that the Hon'ble Commission in the past has been usually considering the escalation factor for escalating Mid-Year Expenses to Base-Year based on the last five year WPI and CPI. As per the Suo-Muto order issued by the Commission dated 10, 11 & 12.11.2003, the

escalation rate of 4% was considered for 2004 Regulations based on WPI& CPI for 1998-99 to 2002-03 and considering weightage of 60% for WPI & 40% for CPI;

> *"3.18 We have not received any objective comments on the escalation formula. So we intend to continue its application. Based on the above escalation formula, the escalation for the past 5 years i.e. from 1998-99 to 2002-03 works out to 5.89%, 2.35%, 4.40%, 3.49% and 2.75% and the average escalation for the past 5 years works out to 3.78% (rounded off to 4%). Accordingly, we direct that an escalation rate of 4% shall be applied for working out O&M expenses for thermal power generating stations during the period 01.04.2001 to 31.03.2004 to arrive at normalised O&M expenses for the base year 2003-04 and to specify norms of O&M expenses for the tariff period 2004-2009."*

Similar principles were followed during 2009 Regulations as evident from the Explanatory Memorandum for 2009-14 Regulations as extracted below:

> *"14.1.17 The average escalation during the last 5 years works out as 5.17% for the thermal generating stations considering weightage of 60% for WPI and weightage of 40% for CPI. 14.1.18 Escalating the average of 3 years i.e. 2004-05 to 2006-07 @ 5.17% every year the normative O&M expenses in 2009-10 works out as Rs. 11.97 Lakh per MW. It can be seen that the normalized O&M expenses of 11.97 Lakh based on NTPC and some SEBs/IPPs actuals considering actual escalation rates are lower than the normative O&M expenses allowed by the Commission for the year 2008-09."*

During 2014 regulations, escalation rate of 5.72% (Actual increase in O&M expenses for the period 2008-09 to 2012-13) was considered as actual inflation was significantly higher about 8.35% for the said years. Similarly, during 2019 Regulations, escalation rate of 3.31% was considered which is very close to the actual inflation of 3.41% for the period 2013-14 to 2017-18.

As evident from the past EMs/Suo-Motu Orders, it is well established that the Hon'ble Commission for arriving at the base years expenses from Mid-Year expenses has considered the either average escalation for the past 5 years considering weightage of 60% for WPI and weightage of 40% for CPI or actual escalation being close to it. Only in the cases where the actual inflation is significantly higher has considered alternative but endeavoured to keep it close the actual inflation. It is also important to note that once expenses have already been normalized (i.e. fixed variable), actual inflation should have been considered to arrive at the base year expenses else projection would not reflect the actual inflationary growth required giving depressed figure for future years i.e., for 2024-25 as can be seen from illustration given below.

Normative O&M Expenses (projected) as per EM (Table 16)(W/o Capital Spares)(Rs Lakhs/MW)	Normative O&M Expenses as per 2019 Regulations (Rs Lakh/MW)
FY 2024-25	**FY 2023-24**
25.85	**25.84**

In fact no increase has been given from 2023-24 to 2024-25 level. It is not possible for any Generating Station to place orders for O&M services for next year without providing any escalation. The first year depressed projection has further led to depressed/lower norms for upcoming years which shall ultimately hit finances of Generating Stations.

Hence, in view of above, it is most humbly requested to the Hon'ble Commission to consider the escalation rate of 5.89% derived based on WPI:CPI in the ratio of 60:40 as per established practice

for escalation of Mid-Year Expenses to arrive at the base year values for both generating stations and transmission licensees. Accordingly, in our humble view, the above established practice should continue for fair and equitable treatment to all the Generators and Transmission Licensees.

Projected Average O&M Expenses for 500 MW Generating Stations

Generating Stations	FY 2018-19	FY 2019-20	FY 2020-21*	FY 2021-22*	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
	Actual					Derived	Projected @ 5.89%(WPI:CPI)				
Simhadri TPS	21.55	22.01	22.74	23.48	23.65	26.94	28.53	30.21	31.99	33.87	35.87
Talcher STPP	20.52	21.68	22.39	23.13	24.10	26.56	28.12	29.78	31.53	33.39	35.36
Rihand TPS	18.63	19.00	19.63	20.27	20.46	23.27	24.64	26.09	27.63	29.26	30.98
Sipat TPP Stage 2	19.10	20.05	20.71	21.39	21.64	24.44	25.88	27.40	29.01	30.72	32.54
Dadri TPP Stage 2	19.06	21.26	21.96	22.68	22.53	25.53	27.03	28.63	30.31	32.10	33.99
Ramakundam Stage 2	20.47	20.56	21.24	21.94	21.24	25.04	26.52	28.08	29.73	31.49	33.34
Korba Stage 2	23.25	24.03	24.82	25.64	24.52	29.04	30.75	32.56	34.48	36.51	38.66
Kahalgaon Stage 2	21.15	22.65	23.40	24.17	25.05	27.65	29.28	31.00	32.83	34.76	36.81
Mauda Stage 1	18.33	19.28	19.92	20.57	21.72	23.70	25.10	26.58	28.15	29.81	31.56
Farakka Stage 2	24.99	26.83	27.71	28.63	26.48	31.98	33.86	35.85	37.97	40.20	42.57
Average (500 MW)	20.71	21.74	22.45	23.19	23.14	26.41	**27.97**	**29.62**	**31.36**	**33.21**	**35.17**

** These values do not include any additions for Capital Spares above Rs. 20 Lakhs*

With inclusion of Capital spares as allowed by the Commission in the Draft Regulations the Norms works out to as follows for 500 MW Units:

(Rs. Lakh/MW)

FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
28.34	30.01	31.78	33.65	35.63

Further, it is requested that that any non-recurring/ abnormal expenses shall be considered over and above the normative O&M approved by the Commission at the time of truing up for all the generating station and transmission licensees as any abnormal expenses incurred in past years has already been removed for arriving at the O&M normative expenses for the upcoming control period.

Also, O&M expenses norms for generating companies with single plant may be allowed a higher O&M expense norms with a factor of 1.10 times, as IPPs neither get the benefit of economies of scale nor their plants form part of the population for normative O&M computation.

6. Regulation 36 Clause 1(7) and Clause 1(8).

> *36(1)(7) Any additional O&M expenses incurred by the generating company or transmission licensee due to any change in law or Force Majeure event shall be considered at the time of truing up of tariff:*
>
> .....

Provided that such impact shall be allowed only in case the overall impact of such change in law event in a year is more than 5% of normative O&M expenses allowed for the year;

36(1)(8) In the case of a generating company owned by the Central or State Government, the impact on account of implementation of wage or pay revision shall be allowed at the time of truing up of tariff.

Our Views and observations

Change in Law Margin

It must be noted that even though the normative structure of O&M is necessary for the sake of simplifying the approval process, however, provisions for Change in Law should be based on the settled principles of law. The impact created by the Change in Law events, even though small needs to be addressed separately and included at the time of truing-up exercise. Under the current CIL rules also impact due to Change in Law event t should be allowed and has not been linked to any threshold/amount. Therefore, the threshold of 5% of Normative O&M Expenses appears to be in deviation to settled law and the established principles of the MYT Framework. Hence, there should be no subsuming of the cost due to CIL and the entire amount should be allowed as per the settled law.

Moreover, 5% margin on Normative O&M Expenses may lead to significant losses as 5% of Normative O&M Expenses for 2024-25 works out to be 6.6 Cr (5% x 500 x 26.22) for a 500 MW Unit, which is a considerable amount to be absorbed by a Generating Unit. Therefore, it is requested that any impact on O&M expenses due to change in law event should be allowed on actual basis. Moreover, impact should be seen as accumulative of all Change in Law/Force Majeure events.

Impact of Wage Revision

It is relevant to note that the impact due to wage revision so far has been provided to all the generating stations regardless of it being private or government. Relevant extracts of 2019-24 tariff period regarding wage revision are extracted below where additional impact of Rs. 1.60 Lakh/MW has been considered due to wage revision to arrive at the normative O&M norms:

> *"f) For NTPC stations, it was generally observed that the employee expenses for FY 2016-17 and FY 2017-18 were on the higher side due to impact of wage revision. During the FY 2016-17, the pay revision impact is provided for 3 months (i.e. January 2017-March 2017), while during FY 2017-18, the same is provided for the entire financial year. <u>This pay revision impact has been separated from employee expense during the respective financial year, which works out to INR 1.60 Lakh/MW for coal based generating stations and INR 1.38 Lakhs/MW for gas based generating stations. The same has been considered while deriving the norms for O&M expenses.</u>"*

Similarly in the Explanatory Memorandum for 2009-14 Tariff Regulations the Hon'ble Commission gave 45% increase in employee cost towards pay revision impact to all:

> "14.1.20 *The next pay revision is due with effect from 1.4.2007 and it may not be possible to absorb the next pay revision impact. The Commission has therefore, decided to consider a normative pay revision impact of 45% increase in employee costs on overall basis while specifying the normative O&M expenses across the board for all central utilities. The actual increase may be higher or lower than the normative increase of 45% in different segments of employees. Considering this O&M expenses for NTPC coal based stations for the year 2009-10 works out as Rs. 13.77 Lakh/MW. For this normalized O&M expenses of Rs. 9.72 Lakh/MW have been escalated at annual escalation rate of 5.17% to arrive at O&M expenses of 2009-10 without pay revision <u>and then the 45% increase in employee cost has been factored in to arrive at normative O&M expenses in 2009-10 with pay revision impact."</u>*

The Hon'ble Commission in the current draft notification for 2024-29 tariff period has not considered such impact owing to pay revision while arriving at the O&M norms but has specifically allowed wage revision impact to be considered only for the central government entities at the time of true-up and not to the private entities. In our humble opinion, this is not in accordance with the spirit of the fundamental principles of performance-based regulation and the established practice that has been followed by the Hon'ble Commission so far.
Therefore, it is requested to include such impact in the O&M norms, so that the same is available to all the generating station, irrespective of being government or private and shall be fair and equitable treatment to all. Therefore, if impact of wage revision is to be allowed during true-up based on wage revision, in such scenario, in our view, whenever CPSUs are allowed pay revision, O&M Norms may kindly be revised retrospectively and allowed to all Generators during the truing-up.
Alternatively the Hon'ble Commission is requested to retain the approach as proposed in the approach paper that is allowing 50% of the actual wage revision on a normative basis to all the Generating Stations regardless of utility being Private or Public Entity.

Re: Provisions for Ash Disposal Expenses in the Regulations:

In context to Ash Disposal/Transportation Expenses the Hon'ble Commission in the Explanatory Memorandum has observed following:

> *"15.5.2 (d)…Further, the costs associated with handling and transporting ash are treated separately. Therefore, due to the variable and irregular nature of ash disposal activities, such expenses have not been considered for computing the O&M expense Norms"*

In view of the above observations, the Hon'ble Commission is requested to provide appropriate proviso under O&M Regulation for dealing with Ash Disposal expenses separately as such expenses have not been considered in past due to absence of any specific reference in Regulations.

In addition, it may kindly be noted that as per notification dated 31.12.2021, MoEF&CC has made it a statutory obligation for every Thermal Power Plants (TPP) to ensure 100% utilisation of fly ash. The notification mandates utilisation of entire legacy ash in time bound manner and operational ash on regular basis. Therefore, ash disposal expenses are now mandated by law and need to be included in the Regulations. The same has also been recognized by the Hon'ble Commission in its order dated 5.11.2018 in Petition No. 172/MP/2016 and order dated 28.10.2022 in Petition No. 205/MP/2021 as change in law event.

Since utilisation of ash is now mandatory and obligatory in nature, it is proposed to allow such expenditure as per actuals and for the same specific proviso needs to be specified in the Regulations for certainty. Further, the operational ash which is to be disposed of should be allowed as part of O&M expenses, however, the same are not included for working capital till now. Since these are mandatory and similar to other O&M expenses, they should also form part of the Working Capital. Further, the allocation of such ash evacuation expenses to beneficiaries should in terms of their actual schedule. The same should also form part of AFC while determination of tariff subject to truing-up on actuals.

7. Regulation 30 Clause 3

> *30(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% for the transmission system, including the communication system, at the base rate of 15.50% for Thermal Generating Station and run-of-river hydro generating station and at the base rate of 17.00% for storage type hydro generating stations, pumped storage hydro generating stations and run-of-river generating station with pondage;*
>
> *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:*
> *i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*

<u>Our Views and observations</u>

The Commission has continued with the Existing Approach for ACE within original scope of work, however, RoE on ACE beyond original scope, including ECS has been changed to 1 year SBI MCLR + 350 basis points up to a ceiling limit of 14.00% from the earlier approach of WAROI. It is being humbly submitted that the Hon'ble Commission itself in its order dated 21.12.2000 has recognized that the returns are to be estimated at company level and therefore, there shall be no differentiation between old and new assets in determining the rate of return. The Hon'ble Commission in the said order also noted that as long as assets of different vintage provide the same level and quality of service, there is no justification for a differentiated return between the two categories. Since no distinction is made in declaring dividend on equity based on the date of provision of the equity to the company, there shall be no distinction in RoE also. Relevant extract of the Order dated 21.12.2000:

> *"2.4.7…We also understand that pricing bodies for other industrial products have not made any distinction in the return on account of vintage of assets. In the circumstances, we consider it appropriate that no distinction need be made in the return on equity on account of vintage of assets."*

Further, the Tariff Policy guidelines mandates that balanced approach needs to be adopted while laying down rate of return for the interests of consumers and the need for investments. The Tariff Policy mandates that the rate of return on equity for generation and transmission projects should be based on overall risk and the prevalent cost of capital. Further, the equity Beta or levered Beta considered for the computation of un-levered beta is of company/organisation as a whole and not asset-wise and the same cannot be used to allow asset wise RoE. Hence, RoE should be allowed on overall capital cost and not asset wise. Further, limiting the RoE rate to a ceiling rate is not apt as the same completely ignore the impact of market forces on interest rates. Putting a ceiling on the return on equity further widens the gap between the allowed return and real cost of equity, as determined by the Hon'ble Commission through scientific CAPM method for all Control Period till now, especially in the prevailing interest rate hardening scenario. It will also be not legitimate to link the RoE to reference rate which is lower than cost of equity as it is against legislative intent as well as CERC's statement in Explanatory Memorandum that it has to be compensated at its cost, i.e. cost of equity, which must be higher than cost of debt. The Hon'ble Commission in its own SOR dated 24.4.2014 to Tariff Regulations, 2014 has stated that unless the debt market stabilizes, it may not be appropriate to link the rate of return to any benchmark rate with mark up. Therefore, it is requested to not consider the option of asset wise ROE or benchmark linked ROE for all additional capitalization's including Change in Law and Force Majeure in the forthcoming Regulations. In case lower return for certain assets is considered than on balance assets a higher return has to be considered as the effective return on total assets worked out from market data [i.e. 15.5%] is the weighted average of these two. However, this will complicate the computations and, therefore common rate of 15.5% may be allowed for all assets.

It is further relevant to note that the Return on Equity for Additional Capitalisation beyond original scope of work has been proposed to be allowed at SBI MCLR + 350 basis points that is with Risk Premium of only 0.25% over the interest rate for Working Capital which is proposed to be SBI MCLR + 325 basis points. The rate of Return on Equity is determined based on the assessment of overall risk and the prevalent cost of capital. Further, it should lead to a generation of reasonable surplus and attract investment for the growth of the sector. Para 5.8.4 of NEP, 2005 provides that Return on investment will need to be provided in a manner that the sector is able to attract adequate investments at par with, if not in preference to, investment opportunities in other sectors.

Further, RoE for new transmission projects achieving COD on or after 1.4.2024 has been reduced to 15.00%. We are of the view that even new projects will be facing similar risks in terms of delays etc. and hence the RoE should be same for new projects also. The proposed method shall also increase the complexity while calculating the tariff of the Assets, since different units may achieve COD post 1.4.2024 this will lead to different RoE being applicable to the different Units of the same project.

The Risk Perception for the Transmission Business as a whole is still the same with no material change in risks such as Building and Construction Risk, Operational Risk, no avenues for additional revenue from Transmission Business apart from AFC and additionally they have unknown RoW and geological surprise risk especially in hilly terrains. Further the impact of reduction of RoE will lead to increase in borrowing cost for the future projects with insignificant benefit to end consumers as provided by the Forum of Regulators in its report "Analysis of Factors Impacting Retail Tariff and Measures to Address them" as referred in approach paper has pointed that

"The contribution of RoE on generation, transmission and distribution, in respect of 12 States were studied. It transpired that if the RoE was reduced from 15.5% to 14%, there would be reduction of 2 paisa per unit of retail tariff ."

Thus, it is evident that reduction of Rate of RoE, that too only for transmission, has negligible impact on overall cost of power to the end consumer, but it may end up in creating adverse financial situation of Generators and Transmission Company.

We would like to bring to the attention of the Hon'ble Commission that the risk perception for generating stations has increased due recurring and increasing domestic coal shortages along with the non-payment of power purchase cost by the procurers. The same is evident by an all-time high proportion of stressed assets. Accordingly, there is a need to consider increasing the rate of RoE for generation but at the very least the RoE of 15.5% should be retained in the final regulations. Further, regulatory certainty is also of utmost importance to continue attracting investment in the power sector.

8. Regulation 31 Clause 1 and clause 2

31(1) The rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. The effective tax rate shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the concerned generating company or the transmission licensee by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon.

31(2) The rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:
Rate of pre-tax return on equity = Base rate / (1-t)

<u>Our Views and observations</u>

We submit that the Effective tax rate (ETR) may be computed as (Actual Tax Paid) divided by Profit Before Tax (PBT), **without any capping to Normal Tax Rate.** The current formula does not fully capture the tax implications of the company with multiple businesses particularly when other businesses have huge income or losses. This formula needs to capture the effect of change from PBT to Taxable income of regulated business.

Hon'ble APTEL in its Judgement dated 28.11.2013 in APPEAL NO.104, 105 and 106 of 2012 has held that regulated and other businesses have to be kept in separate watertight compartments so that the regulated business neither subsidises not gets subsidized by other businesses. Relevant extract of this Judgement is as follows:

"52. The Judgment in Appeal No. 251 of 2006 is based on the principle that regulated business in question that is within the jurisdiction of the Regulatory State Commission, should neither subsidise nor get subsidy from other businesses whether unregulated or regulated by the same or different regulator. In other words, the Judgment mandates that the taxable income of the regulated business within the jurisdiction of the

Regulatory State Commission should be computed on stand alone basis, irrespective of what is the impact of this business or other businesses on the overall tax liability. There is a possibility of distortion when the impact of regulated business or other businesses on total tax liability is considered or the overall tax liability is allocated for determining the tax liability for regulated business."

The Judgement as quoted above clearly stipulates that the taxable income of the regulated business must be computed independently, irrespective of the overall tax impact to ensure that regulated business neither subsidizes not get subsidized by other businesses. It is important to note that this Judgement has attained finality and, therefore, holds the field in this matter of law.

Therefore, even if the actual tax paid is zero due to losses in other businesses (which would not be available for carry forward to those businesses), **either grossing up with applicable tax rate may be allowed or the benefit of lower tax due to other businesses may be allowed to be recovered** subsequently when tax payable on other businesses is not lowered due to carry forward of its losses already availed for the benefit of Regulated businesses.

Accordingly, the Hon'ble Commission is requested to **modify the formula for Effective Tax Rate suitably** to take care of the non-adjustment of current year loss, credit for carry forward losses, unabsorbed depreciation and credit for MAT on other businesses.

9. Transmission Majoration Factor (TMF)

Comments: Existing Tariff Regulations provides for applicability of TMF for a period 25 years from the date of issue of licence for transmission projects executed through JV route in terms of Regulation 4.10A of the CERC (Terms and Conditions of Tariff) Regulations, 2001. However, while considering the useful life for determining the period for which TMF can be availed, the Commission inadvertently considered useful life as 25 years instead of 35 years as provided under the Appendix II of the Tariff Regulations, 2001. Secondly, it was incorrectly inferred that license was granted for 25 years on the basis of life being 25 years since license of 25 years was granted in accordance with Section 15(8) of the Act and not on account of the useful life of 25 years. The above understanding has also been recorded by this Hon'ble Commission in Explanatory Memorandum to CERC (Procedure, Terms and Conditions for grant of Transmission License and other related matters) (Amendment) Regulations, 2010. The detailed note explaining the above issue is enclosed hereto and marked as **ANNEXURE-II** for kind perusal of Hon'ble Commission. Restricting TMF to 25 years despite the fact that it was granted for the entire life of the project shall cause grave prejudice to the developer and have direct bearing on viability of the project. It is, therefore, requested to clarify that the TMF shall be continued till the end of the useful life of 35 years (or extended life) of the asset in the upcoming Tariff Regulations

10. Regulation 33 Clause 10, 11 and 12

33(10) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (9) of this Regulation.

33(11) Depreciation of the emission control system of an existing generating station that is yet to complete its useful life or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on the straight line method at rates specified in Appendix- I to these regulations;

33(12) In case the date of operation of the emission control system is subsequent to the date of completion of the useful life of generating station commercial operation of the generating station or unit thereof, depreciation of ECS shall be computed annually from the date of operation of such emission control system based on the straight line method, with a salvage value of 10% and recovered over ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher.

Our Views and observations

The proposed recovery of depreciation beyond the useful life will have financial implications specifically in the context of the Existing PPAs. The existing PPAs, which were signed for a duration of 25 years, do not account for the extended operational life. Without an assurance of PPA extensions, the proposed regulation could lead to under-recovery of the capital cost invested in ECS, posing significant cash flow challenges.

It is important to note that recovery beyond useful life is subject to two conditions:

- Certainty on approval of Renovation and Modernisation Cost for extension of life beyond 25 years;
- Extension of PPA period beyond 25 years up to extended life.

Also, changing the current practice of recovering depreciation within the useful life of the ECS may introduce financial uncertainty. This uncertainty could deter investments, potentially leading to higher interest rates due to the scarcity of long-term financing options. This provision puts the Generators at the mercy of the beneficiaries, where the recovery of allowable Depreciation has been made contingent upon the extension of PPA beyond the period of 25 years.

Hence, it is proposed that the useful life of existing projects should not be unilaterally extended until related issues like the extension of existing PPAs or securing fresh tie-ups, ensuring recovery of depreciation within the current useful life, and accounting for additional costs related to wear and tear of the ECS are comprehensively addressed.

11. Regulation 3 Clause 31 and clause 88

3(31) 'Extended Life' means the life of a generating station or unit thereof or transmission system or element thereof beyond the period of useful ***or operational life****, as may be determined by the Commission on case to case basis.*

Our Views and observations

It is pertinent to note that the extended life has only been referenced in Regulation 33(3) towards recovery of unrecovered depreciation on account of lower availability beyond the useful life. Hence, reference of Operational life in the definition of Extended Life may kindly be removed.

12. Regulation 3 Clause 67

'Reference Rate of Interest' means the one year marginal cost of funds based lending rate (MCLR) of the State Bank of India (SBI) issued from time to time plus 325 basis points.

<u>Our Views and observations</u>

The Commission has replaced the definition of 'Bank Rate' with 'Reference Rate of Interest' which has been reduced from 1 year SBI MCLR + 350 basis point to 1 year SBI MCLR + 325 basis point. In this regard, it is requested that the Hon'ble Commission may please continue with the earlier 350 basis points over the 1 year SBI MCLR instead of 325 basis points as proposed in the draft regulations as the linkage to SBI MCLR has already taken care of the rationalisation from previous control period when it was linked to SBI PLR or SBI Base rate. Further, tightening of the spread may impact the small developers or projects with delayed recovery of monthly charges.

13. Regulation 3 Clause 88

3(88) Useful Life' in relation to a unit of a generating station, integrated mines, transmission system and communication system from the date of commercial operation shall mean the following:

(a)	*Coal/Lignite based thermal generating station*	*25 years*
(e)	*Hydro generating station including pumped storage hydro generating stations*	*40 years*

Provided that in the case of coal/lignite based thermal generating stations and hydro generating stations, the Operational Life may be 35 years and 50 years, respectively

<u>Our Views and observations</u>

The Hon'ble Commission has introduced concept of 'Operational Life' apart from 'Useful Life' and has mentioned the Operation Life only in the case of coal/lignite based thermal generating stations (35 years) and hydro generating stations (50 years) which is more than the Useful life by 10 years. In this regard, it is observed further that the recovery of depreciation for the assets added during the fag end or on account of revised emission norms have been linked to the operational life which is beyond the useful life.

Currently, most of the PPAs are signed for 25 years, which matches with the original useful life of the thermal generating asset. Extension in useful life beyond 25 years, for recovery of depreciation on the assets added during the fag end and on account of revised emission norms without corresponding assurance of the PPA extension, would result in under-recovery of the capital cost by the developer.

Increase in useful life would negatively impact the financial position of the utilities. Therefore, assuming without admitting that, even if the life is extended the depreciation should be allowed to be recovered within the originally determined useful life of 25 years.

Further, with the current scenario of flexibilization of thermal assets to accommodate the intermittent RE sources of generation, the thermal assets are bound to face a situation of accelerated wear and tear, thus, impacting the operational efficiency during the original life time.

The impact on the extension of useful/ operating life from 25 years to 35 years on the operating parameters under such stressed conditions is still unknown. Therefore, it is not advisable to extend the useful life of the existing assets, without providing for appropriate mechanism for the likely additional capital expenditure towards Renovation and Modernisation, O&M expenses required for the proposed extended useful life and extension of PPA.

Accordingly, it is suggested not to increase Useful life of the existing projects unilaterally, till the related issues like extension of PPA/Fresh tie-up, recovery of depreciation within existing useful life and additional cost of wear and tear, etc. are addressed.

14. Regulation 10 Clause 3 and clause 7 along with Regulation 13 clause 5

10(3) If the information furnished in the petition is in accordance with these regulations, the Commission may consider granting interim tariff of up to ninety per cent (90%) of the tariff claimed in case of new generating station or unit thereof or transmission system or element thereof during the first hearing of the application:

Provided that in case the final tariff determined by the Commission is lower than the interim tariff by more than 10%, the generating company or transmission licensee shall return the excess amount recovered from the beneficiaries or long term customers, as the case may be with simple interest at 1.20 times of the rate worked out on the basis of 1 year SBI MCLR plus 100 basis points prevailing as on 1st April of the financial year in which such excess recovery was made.

...

10(7) Subject to Sub-Clause (8) below, the difference between the tariff determined in accordance with clauses (3) and (5) above and clauses (4) and (5) above, shall be ***recovered from or refunded to****, the beneficiaries or the long term customers, as the case may be, with simple interest at the rate equal to the 1 year SBI MCLR plus 100 basis points prevailing as on 1st April of the respective year of the tariff period, in six equal monthly instalments.*

Provided that the bills to recover or refund shall be raised by the generating company or the transmission licensees within 30 days from the issuance of the Order.

Provided further that such interest, including that determined as per sub-clause (8) of this regulation shall be payable till the date of issuance of the Order and no interest shall be allowed or levied during the period of six-monthly instalments,

Provided further that in case where money is to be refunded and there is a delay in the raising of bills by the generating company or transmission licensees beyond 30 days from the issuance of the Order, it shall attract a late payment surcharge as applicable in accordance with these regulations.

(8) Where the capital cost approved by the Commission on the basis of projected additional capital expenditure exceeds the actual trued up additional capital expenditure incurred on a year to year basis by more than 10%, the generating company or the transmission licensee ***shall refund to the*** *beneficiaries or the long term customers as the case may be, the tariff recovered corresponding to the additional capital expenditure not incurred, as approved by the Commission, along with simple interest at 1.20 times of*

the rate worked out on the basis of 1 year SBI MCLR plus 100 basis points as prevalent on 1st April of the respective year

13(5) After truing up, if the tariff or the input price already recovered exceeds or falls short of the tariff or the input price approved by the Commission under these regulations, the generating company or the transmission licensee, shall refund to or recover from, the beneficiaries or the long term customers, as the case may be, the excess or the shortfall amount, in accordance with ***Regulation 10(7) and 10(8)*** *of these regulations as may be applicable.*

Our Views and observations

The applicability of higher carrying cost of 1.20 times of the 1 year SBI MCLR plus 100 basis point may kindly be excluded for following scenarios:

1. The Additional Capital Expenditure (ACE) allowed during True-up on account of Force Majeure, Change in Law events or addressing any emergent situation which could not have been taken in the initial proposal.
2. The ACE considered during the true-up for which liberty has been granted earlier.
3. The ACE deferred for reasons beyond the control of the Generating Company.

Further, it is requested that the Commission may clarify the applicability of whether rebate, if any, shall be allowed on each instalment or not. If yes, the Commission is requested to provide modalities for claiming rebate.

We agree with the Commission for granting the Interim Tariff to the developer on first hearing since this reduces the financial burden on the developer and makes the investment prospects less risky for the developer, thus attracting more investments in the sector. However, it is requested –

1. It may be clarified that even in case a dispute is raised through Review Petition and / or Appeal, the recovery/ refund shall be made as per the bills raised in accordance with the Order in effect, for the time the matter is sub-judice.
2. Interest may be allowed during the period of billing of six-monthly instalments also, as the date upto which the billing is done, the funds remain outstanding to the generating company/ licensee.
3. Rate of interest on pending dues and/ or refund should be same. Further, delay in raising bills may be due to no fault of the generation company/ transmission licensee – e.g. corrigendum, clarification sought, Review, etc.

As regard the proviso that the bills to recover or refund shall be raised by the generating company or the transmission licensees within 30 days from the issuance of the Order, it is being most humbly submitted that reconciliations and settlements involves monthly adjustments and interest computations thereon till date of order. It also involves adjustments on account of sharing of savings due to refinancing of loan and sharing of operational gains, if any, that may arise due to true up. This adds to the complexity and also becomes time consuming. Hence, it is proposed to allow a minimum of 60 days from the issuance of the order for generating companies to raise and send bills, along with interest and detailed calculations, to beneficiaries.

15. Regulation 19 Clause 5

> *'For Projects acquired through NCLT proceedings, the following shall be considered while approving Capital Cost for determination of tariff.*
> *(a) For projects already under operation, historical GFA of the project acquired or the acquisition value paid by the generating company, whichever is lower*
> *...*
> *(c) In case any under construction project is acquired which is yet to achieve commercial operation, the acquisition value or the actual audited cost incurred till the date of acquisition, whichever is lower, shall be considered. and..'*

<u>Our Views and observations</u>

It is submitted that Commission through a separate provision under regulation 26(1)(i) has recognised the need and allowed additional capital expenditure for projects acquired through NCLT process after furnishing Technical Justification and CBA, which is appreciated.

However, for consideration of capital cost for determination of tariff the Commission has proposed to consider lower of the historical GFA or the acquisition value in case of already operational projects and lower of acquisition value or the actual audited cost incurred till the date of acquisition for under construction project may inadvertently undermine the objectives of the NCLT resolution process. The acquisition value of stressed operational assets, particularly under NCLT proceedings, is likely to be influenced by factors such as reduced recovery period and aims at maximizing valuation to minimize losses to creditors/ Financial Institutions. This value, often being lower than the historical cost, may not fully reflect the fair valuation of the asset, especially considering its revenue-generating potential based on historical or approved costs.

The acquisition valuation of projects, whether operational or under construction, is intrinsically linked to future revenue streams. These streams are contingent upon the historical/approved costs for Section 62 projects and the bid tariff for Section 63 projects. In instances of stressed operational assets acquired under NCLT proceedings, the acquisition values are often lower than the historical costs. This reduction typically results from partial recoveries made until resolution and a shortened balance recovery period, usually less than 25 years. Given that NCLT resolutions aim to maximize valuations to minimize losses to financial institutions, fixing tariffs on lower acquisition values shall result in lower valuations.

If the acquisition value is used as the primary basis for tariff determination, then tariff streams can be determined but then it would be difficult to arrive at optimum acquisition value during bidding and may yield depressed valuations. If such discounted acquisition values are considered for tariff determination, it will completely defeat the objective of resolution through NCLT Proceedings, which is to ensure fair and sustainable financial restructuring.

It would be more prudent for the Hon'ble CERC to consider either the approved capital cost by the Appropriate Commission or the historical cost, subject to a prudence check and should not consider the acquisition value at all. This is also in line with the settled position of law for Section 63 projects.

16. Regulation 21 Clause 1 and clause 5

21(1) Provided further that in case IDC on normative loan is to be allowed prior to infusion of actual loan, rate of interest for computing such IDC shall be equal to 1-year SBI MCLR as prevailing on 1st April of the respective year.

Provided further that IDC on normative loan, post infusion of actual loan shall be computed based on WAROI for that respective quarter.

...

21(5) If the delay in achieving the COD is attributable either in entirety or in part to the generating company or the transmission licensee or its contractor or supplier or agency, in such cases, IDC and IEDC due to such delay may be disallowed after prudence check either in entirety or on pro-rata basis corresponding to the period of delay not condoned vis-à-vis total implementation period and the liquidated damages, if any, recovered from the contractor or supplier or agency shall be retained by the generating company or the transmission licensee, in the same proportion of delay not condoned vis-à-vis total implementation period.

[Note: For e.g.: In case a project was scheduled to be completed in 48 months and is actually completed in 60 months. Out of 12 months of time overrun, if only 6 months of time overrun is condoned, the allowable IDC and IEDC shall be computed by considering the total IDC and IEDC incurred for 60 months and allowed in the proportion of 54 months over 60 month period.]

Provided that in case of activities like obtaining forest clearance, NHAI Clearance, approval of Railways, and acquisition of government land, where delay is on account of delay in approval of concerned authority, in such cases maximum condonation shall be allowed up to 90% of the delay associated with obtaining such approvals or clearances.

<u>Our Views and observations</u>

We agree with the views of the Commission of providing interest at the rate of 1-year SBI MCLR in case of IDC on normative loan prior to infusion of actual loan since the developer can now prudently start the associated works before the approval of actual loan ensuring returns on the equity infused by the developer. Regulation 21(5) has gone with the approach that in case delay in achieving COD is attributable to developer in such cases IDC and IEDC due to such delay may be disallowed after prudence check either in entirety or on pro-rata basis corresponding to the period of delay not condoned and LD recovered if any shall be returned in the same proportion of delay not condoned. The Commission has thus gone with the second approach where entire IDC and IEDC is pro-rated based on the basis of the proportion of delay condoned. Since the developers go for a prudent phasing of funds ensuring that IDC shall be computed corresponding to the loan from the date of infusion of debt fund and most of the debt component used to be taken up towards the end of the Construction period. It is submitted that the developer follows a prudent phasing practice, wherein most of the payments are done at the later stages of the construction period in order to reduce IDC and IEDC incurred towards the project. Therefore, the right approach should be to undertake the prudence check of the proposed IDC at the time of provisional approval of capital cost, i.e. determination of interim AFC itself, and if there is no delay then IDC allowed in the Investment Approval (IA) should be allowed. However, in case of delay, the IDC up to amount as per IA should be allowed as such and any excess IDC incurred should be prorated in a manner as suggested below:

₹(X)+(Y-X)*[(A+B)/C]

X= IDC approved in IA

Y= Actual IDC incurred upto COD

A= No. of months approved for the project to be commissioned

B= Total no. of months of delay condoned

C= Total no. of months taken for the project to be commissioned

Therefore, we request Hon'ble CERC to consider the approach as proposed above while allowing IDC.

Further, the Regulation provides that in case of delay on account of delay in approval maximum of 90% of the delay associated with obtaining such approvals may be condoned. We would like to emphasize that it is the basic principle of law that no one can be punished for something where he has been found not guilty i.e., when delay is condoned. It is submitted that the Project Developers actively engage with the statutory authorities for getting clearances and approvals at the earliest, as they have their deepest stake in the project. However, they don't have much control over the approval processes of the statutory authorities and time taken for providing the same. Similarly, developers also continuously engage with the local authorities in case of local disturbances and other right of ways issues to resolve it in a timely manner. In such a scenario, disallowing some part of the cost impact corresponding to the delay condoned will lead to an additional penalty apart from already reduced returns (IRR) due to delays. For, delay not condoned disallowances are already being done. Therefore, it is suggested to continue with the existing approach of condoning 100% of the delay on account of approvals from statutory authorities. Penalizing the developers by restricting the delay condoned to maximum 90% of delay attributable then such clauses will increase risk and future investments would also be dissuaded.

Further, the Hon'ble Commission is requested to notify a separate disclosure form for the Liquidated Damages along with the tariff formats to avoid the double deduction of LD amount, and also include a specific provision in the Tariff Regulations to provide further clarity on the approach regarding LD adjustment.

17. Regulation 22

The following shall be considered as controllable and uncontrollable factors for deciding time overrun, cost escalation, IDC and IEDC of the new projects:

.....

<u>Our Views and observations</u>

It is submitted that the Commission in the approach paper had proposed to consider the delays on account of forest clearances can also be considered for inclusion as uncontrollable factor. However, the draft notification is silent on the same. It is again reiterated that the delay on account of forest clearance may be considered in the list of Uncontrollable factors along with Force Majeure and Change in Law, since the delays faced by power projects/ transmission projects in

obtaining forest clearance can vary depending on the specific project, location and regulatory processes involved and are totally beyond the control of developer. The inclusion of delay on account of actual time taken for forest clearances as an uncontrollable factor will support the feasibility of the thermal generation/transmission projects. Further, generation projects are facing severe delays for clearance of trees on forest land even after obtaining forest clearance, which again has to be approved from the concerned statutory/local authority. It is, therefore, requested to also consider delay in getting the forest land cleared as part of the uncontrollable factors. Besides delay in obtaining forest clearance, developer has to seek many other clearances from statutory authorities and/or Government Departments, including Railways, National Highway Authority, etc. It is suggested to include all such types of clearances, wherein the delay is attributable to the Government Agencies, as an uncontrollable factor.

Further, we have recently witnessed the impact of Covid-19 resulting in overall loss to society at large, including delays in infrastructure/development projects, to the extent that same was termed as pandemic. Further events like Cyber-attack, change in the course of river stream, any shortage arising due to limit on supply of goods/services by Civic bodies, shortage of water due to restriction by Government Authority or due to embargo/limitation on drawl of water from rivers, etc. are some examples of the events, which are beyond the control of the developer, price and quality of fuel, Force Majeure (FM) and Change in Law (CIL) and thus, may be included under Uncontrollable Factors. Further, the scope of application of Uncontrollable factors, including FM and CIL, may not be limited to capital cost but needs to be expanded to include any component of tariff including energy charges.

18. Regulation 23

23 ***Initial Spares:*** *Initial spares shall be capitalised as a percentage of the Plant and Machinery cost, subject to the following ceiling norms:*

(d) Transmission system	
(iv) Gas Insulated Sub-station (GIS)	*- 6.0%*
-Green Field	*- 5.00%*
-Brown Field	*- 7.00%*

<u>Our Views and observations</u>

The Commission has specified ceiling norm for Initial Spares in case of Gas Insulated Sub-station (GIS) at 6.00% which further has been bifurcated for Green Field at 5.00% and Brown Field at 7.00%, which appears to be a typographical error. The Hon'ble Commission may provide further clarification regarding the same.

19. Regulation 26 Clause 1 (i)

26(1) (i) Any additional capital expenditure which has become necessary for efficient operation of generating station or transmission system as the case may be, including the works required towards projects acquired through NCLT process. The claim shall be substantiated with the technical justification and cost benefit analysis.

Our Views and observations

A separate provision under regulation 26(1)(i) has been introduced where any additional capital expenditure which has become necessary for efficient operation of generating station or transmission system as the case may be, including the works required towards projects acquired through NCLT process is allowed with Technical Justification and CBA.

The Hon'ble Commission is also requested to allow additional capital expenditure which is incurred in an emergency situation subject to approval of the appropriate authority in the organisation. This will enable flexibility to address the emergent circumstances.

20. Regulation 28 Clause 2

28(2) The Special Allowance admissible to a generating station shall be @ Rs 10.75 lakh per MW per year for the control period.

Our Views and observations

The Methodology for determination of the value of Rs. 10.75 lakh per MW per year for the control period may be provided by the Hon'ble Commission along with the works/details considered/included to arrive at the norm of Rs. 10.75 lakh per MW. The Hon'ble Commission may provide clarity regarding grossing up of the Special Allowance, since, though in lieu of R&M, the Special Allowance being a part of AFC is considered as a revenue item and is subject to tax. Thus, the funds available to the developer for undertaking R&M are net of tax only. Further, there should also be a provision for annual increase of Special Allowance linked to the escalation factor similar to that applied for O&M expenses norms.

21. Regulation 32 Clause 6

32 (6) In the case of New Project(s), the rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio of the generating company or the transmission licensee, as the case may be; Provided further that if the generating station or the transmission system, as the case may be, does not have any actual loan, then the rate of interest for a loan shall be considered as 1-year MCLR of the State Bank of India as applicable as on April 01, of the relevant financial year.

Our Views and observations

The Hon'ble Commission is requested that in the case of New Project(s), the rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio of the new project. With the increasingly stringent environment norms, thermal generation project's per MW capital cost has increased significantly. Further, low cost financing are also not easily available to such projects due to perceived environmental impact. Therefore, loans are raised from the market that are specific to the need of the project considering the tenure of the loan matched with COD of the project. The approach proposed in the draft regulations to calculate interest on loan based on weighted average rate of interest (WAROI) of the company shall result in passing on the benefit of project specific reliefs provided by the Government to beneficiaries of other projects and may turn those projects unviable. Therefore, consideration of weighted average

interest rate of a particular project may be continued if project specific loans have been availed by the developer.

22. Regulation 34 Clause 1(a)(i)

> *34(1)(a)(i) Cost of coal or lignite, if applicable, for 10 days for pit-head generating stations and 20 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity, whichever is lower;*

<u>Our Views and observations</u>

We support for the continuation of existing regime of interest on working capital. However, the coal stocking norms for coal based thermal power generation stations were revised by CEA w.e.f. 6.12.2021. As per the revised coal stocking norms, coal based pit-head thermal power plants are required to maintain coal stock in the range of 12 days to 17 days, depending on the month of the year, as against prevailing coal stock norm of 15 days. The non-pit head plants are required to maintain coal stock in the range of 20 days to 26 days compared to the prevailing coal stock norms of 20 days to 30 days. The said recommendations also included imposition of penalty for non-maintenance of coal stock. It shall be pertinent to mention that CEA in the above-mentioned notification itself recognizes that coal based generation/consumption as well as coal despatch varies during the course of the year. Accordingly, it is requested to increase the coal stocking norms in line with CEA recommendations with a margin of 3 to 5 days.

23. Regulation 34 Clause 2

> *34(2) The cost of fuel in cases covered under sub-clauses (a) and (c) of clause (1) of this Regulation shall be based on the landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 59 of these regulations) by the generating station and gross calorific value of the fuel as per actual weighted average for the preceding financial year in case of each financial year for which tariff is to be determined:*
>
> *Provided that in the case of a new generating station, the cost of fuel for the first financial year shall be considered based on landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 59 of these regulations) and gross calorific value of the fuel as per actual weighted average for three months, as used for infirm power, preceding date of commercial operation for which tariff is to be determined.*

<u>Our Views and observations</u>

The Commission has made certain changes regarding Weighted Average values to be considered. Accordingly Weighted Average of Landed Fuel Cost and GCV for financial preceding COD is to be considered for existing projects which was earlier considered for the third quarter of preceding financial year in case of each financial year for which tariff is to be determined. However, it is requested to consider the actual Weighted Average values of the respective years during the True-up exercise.

Regulation 36 Clause 1

36 (1)(9) The operation and maintenance expenses on account of emission control systems in coal or lignite based thermal generating stations shall be 2% of the admitted capital expenditure (excluding IDC and IEDC) as on its date of operation, which shall be escalated annually @ 5.89% during the tariff period ending on 31st March 2029:

Provided that income generated from the sale of gypsum or other by-products shall be reduced from the operation and maintenance expenses.

Our Views and observations

In this regard it may kindly be noted that the Hon'ble Commission has considered the O&M expenses for ECS system as 2.5% of the admitted capital cost excluding IDC and FERV for Section-63 Projects in its Suo-Muto order dated 13.8.2021 after considering the inputs from various stakeholders across the nation. Accordingly, it is requested to allow O&M expenses at 2.5% of the admitted capital cost instead of 2% as proposed.

24. Regulation 35 Clause 1

35(1) In case a generating station or unit thereof, or a transmission system including communication systems or element thereof after it is certified by CEA or CTU or any other statutory authority, that any asset cannot be operated or needs to be replaced on account of environmental concerns or safety issues or system upgradation or a combination of these factors not attributable to generating company or a transmission licensee, the unrecovered depreciable value may be allowed to be recovered on a case-to-case basis after duly adjusting the actual salvage value post disposal of such project.

Provided that the manner of recovery, including a number of instalments in which such unrecovered depreciation will be allowed, shall be specified by the Commission on a case-to-case basis.

Provided further that no carrying cost shall be allowed on any delay associated with such recovery.

Our Views and observations

We understand that for any developer in case that any asset cannot be operated or needs to be replaced on account of environmental concerns or safety issues or system upgradation or a combination of these factors not attributable to generating company or a transmission licensee, the unrecovered depreciable value may be allowed to be recovered on a case-to-case basis after duly adjusting the actual salvage value post disposal of such project. The Commission may determine the number of instalments on case-to-case basis as well and no carrying cost shall be allowed on any delay associated with such recovery. Hence, the Hon'ble Commission should allow any unrecovered depreciation in such cases. Also, in cases where Additional Capital Expenditure has been allowed against replacement of any existing assets, the unrecovered depreciation, if any, for the de-capitalised assets may also be allowed to be recovered.

25. Regulation 84

Sharing of Non-Tariff Income: The non-tariff net income in case of generating station and transmission system from rent of land or buildings, eco-tourism, sale of scrap, and advertisements shall be shared between the generating company or the transmission licensee and the beneficiaries or the long term customers, as the case may be, in the ratio of 1:1.

Our Views and observations

The Electricity Act, 2003 provides following under Section 41 and 51 of the Act:

"Section 41. (Other business of transmission licensee):

A transmission licensee may, with prior intimation to the Appropriate Commission, engage in any business for optimum utilisation of its assets:

Provided that a proportion of the revenues derived from such business shall, as may be specified by the Appropriate Commission, be utilised for reducing its charges for transmission and wheeling…"

"Section 51. (Other businesses of distribution licensees):

A distribution licensee may, with prior intimation to the Appropriate Commission, engage in any other business for optimum utilisation of its assets:

Provided that a proportion of the revenues derived from such business shall, as may be specified by the concerned State Commission, be utilised for reducing its charges for wheeling…."

Thus, the Electricity Act, 2003 only envisages adjustment of income/revenue of other business using assets of transmission and distribution licensees, however, nowhere it envisages adjustment of any revenue/income for determination for Generation Tariff. The above distinction was explicitly carved out since the Act envisages de-licensing of the generation, which was the prime object of the Act and, therefore, sharing the non-Tariff income in the manner it is done for license business would defeat the very purpose thereof. In other words, it would be like bringing the licensing provisions for generation business through the side door of Regulations. In this regard it would be pertinent to note the findings of the Hon'ble Supreme Court in its Judgement dated 06.05.2009 in Civil Appeal Nos. 3510-3511 off 2008 which are relevant and applicable in this regard "*If by reason of a provision of a statute the **generating companies are excluded from the licensing provisions**, one of the principal tool of interpretation is **that the mischief which was sought to be remedied may not be brought back by a side door**. It has to be borne in mind that if the licence raj is brought back through the side door or regulations seeking to achieve the same purpose which the Parliament intended to avoid, there would be a possibility of misinterpretation and mis-application of statute*".

It is requested to appropriately formulate the mechanism such that only identifiable allocated

cost, if any, which has been already borne by the beneficiaries can be shared and only in scenario where allocable cost cannot be identified, net-revenue can be shared in the ratio of 75%:25%, 25% being the part of beneficiaries.

26. Regulation 60 Clause 1

> *The gross calorific value for computation of energy charges as per Regulation 64 of these regulations shall be done in accordance with 'GCV as Received';*
>
> *Provided that the generating station shall have third party sampling done at the billing end and the receiving end through an agency certified by the Ministry of Coal and ensure recovery of compensation as per Fuel Supply Agreement(s) and pass on the benefits of the same to the beneficiaries of the generating station;*
>
> *Provided further that in the absence of any third party sampling through an agency certified by the Ministry of Coal, the GCV shall be considered on the basis of 'as billed' by the Supplier less:*
>
> > *i. Actual loss in calorific value of coal between as billed by the supplier and as received at the generating station, subject to maximum loss in calorific value of 300 kCal/kg for Pit-head based generating stations or generating stations with Integrated mine and 600 kCal/kg for Non-Pit Head based generating stations.*

<u>Our Views and observations</u>

The Hon'ble Commission has introduced that a third-party sampling agency certified by the Ministry of Coal shall do the sampling of coal and the developer is supposed to recover the compensation as per Fuel Supply Agreement and pass on the benefits of same to beneficiaries. It may also be noted that Coal is primarily procured domestically through long term coal linkages from subsidiary companies of Coal India Limited (CIL) at notified rates. Generating company has no control over the coal supply and its Quality, since Coal Companies have monopoly over supply. The above fact has been acknowledged by Hon'ble Commission in the past and relevant section from EM 2019-24 has been reproduced below:

"22.5 In the entire value chain from mine end to generating station end, the loss of GCV can take place on account of grade slippage at mine end, during transportation (transit with railway) and during storage (at generating stations). ***The generating companies generally have no control over the grade/GCV of coal received at their generating stations.*** *There are several cases of grade slippages between the mine mouth and at the site of generating stations. Further, there is loss in GCV during transport of coal through Railway.* ***Therefore, the generator may receive lower energy than what was billed by the coal companies. These are beyond the control of the generating companies."***

In view of the above constraints it is requested that the existing practice of considering coal GCV on 'as received' basis may kindly be continued for 2024-29 period as well. In case, Hon'ble CERC wish to continue with the proposal, it is humbly submitted to enhance the margin of loss to 900 kCal/kg for non-pit head generating station because the actual loss is in the range of 600 to 1200 kCal/kg. It may also be clarified that this margin shall be calculated on an average basis for entire quantity of coal in a particular month.

27. Regulation 62 Clause 6

> *(6) In addition to the capacity charge, an incentive shall be payable to a generating station or unit thereof @ 75 paise/ kWh for ex-bus scheduled energy during Peak Hours and @ 50 paise/ kWh for ex-bus scheduled energy during Off-Peak Hours corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF) achieved on a cumulative basis, as specified in Clause (B) of Regulation 70 of these regulations.*

<u>Our Views and observations</u>

It may kindly be noted that the incentive have remained almost stagnant in the last 10 years and needs to be reviewed considering the prevailing market rate of power in Power Exchanges. Accordingly, we request the Hon'ble Commission to revise the incentive for off-Peak hours at Rs.1 per kWh and for peak hours at Rs. 1.30 per kWh.

28. Regulation 62 Clause 2

....

> *62 (2) Provided that in case generating station or unit thereof is under shutdown due to Renovation and Modernisation or installation of emission control system, as the case may be, the generating company shall be allowed to recover O&M expenses and interest on loan only.*

....

<u>Our Views and observations</u>

We understand that the Hon'ble Commission has introduced the Provision to allow only O&M expense and Interest on Loan on the station/unit shutdown due to Renovation and Modernisation. It is important to note here that the idea behind the existing Regulation which provides for allowance of O&M expenditure and Interest on Loan only for the shutdown period availed for the purpose of Renovation and Modernisation. In this regard, it is crucial to extract the relevant portion of the statement of Reasons to CERC Tariff Regulations 2009 which provides the reasoning for the same:

*"... **Commission's views***
*34.7 As regards payment of capacity charges during renovation & modernisation period, beneficiaries have suggested to limit the capacity charges to Interest on Loan and part of O&M expenses, while some of the stakeholders have suggested to include the depreciation as part of capacity charges during renovation & modernisation period, to facilitate the repayment. **In this regard, it may be noted that renovation & modernisation will be generally carried out at the fag end of the useful life or after completion of useful life** and hence, the generating company or transmission licensee would have recovered substantial part of depreciation on original fixed cost and at that stage, there is unlikely to be any repayment obligation remaining corresponding to the loan for original project cost. Therefore, the Commission is of the view that the provision in draft Regulations in this regard is appropriate and does not warrant any change. However, in case actual loans are outstanding and repayment is to be made, the Commission shall consider the matter on a case to case basis on receipt of an application. ....."*

The Hon'ble Commission may appreciate that renovation and modernisation is normally carried out at the fag end or after completion of useful life as stated in above excerpts of SOR and by then the project developer ought to have recovered all or substantial part of the fixed charges. Therefore, only O&M expenses and interest on loan has been allowed with a caveat to allow depreciation on case to case basis, if any. However, contrary to such premise, such limitation on the recovery of fixed charges has been proposed to be extended for plants which may be in different stages of their useful life and are yet to recover substantial part of the return against the equity invested in the project and depreciation on the fixed assets. Further, apart from interest on loan, principal repayment towards outstanding loan is also required to be made as also acknowledged by the Hon'ble Commission in the analysis (quoted above) and, therefore, recovery of both Depreciation and Return on Equity is essential for the generators to service their obligations and avoid any cascading effect on Lenders and sector at large. The Hon'ble Commission may further appreciate the fact that in case where station has more than one unit, if one Unit is under shutdown for commissioning of ECS the other unit(s) and the generating station is operational and, hence, no obligations as such will reduce for the generating station as far as Annual Fixed Cost is concerned.

Further, as stated above, these generating units are in operation and, accordingly, have kept stock of primary and secondary fuels, consumables, spares for maintenance etc for continuously running the plant. Therefore, denying Interest on working Capital as allowed under extant Regulations will not be in conformity with the extant regulations and the premise/basis on which Interest on working capital is allowed as part of fixed charges. Also, Generators are ought to service the interest on working capital loan and any under recovery on interest on working capital will significantly hamper the capability of generators to service their interest obligation to lenders towards working capital loan and will impair the liquidity position of the utilities. Hence, it is our humble submission that a separate provision for recovery of full Annual Fixed Charge for the number of days of shutdown period on pro-rata basis may be specified.

29.Regulation 64 Clause 4

> *64(4) In case of part or full use of an alternative source of fuel supply by coal based thermal generating stations other than as agreed by the generating company and beneficiaries in their power purchase agreement for the supply of contracted power on account of a shortage of fuel or optimization of economical operation through blending, the use of an alternative source of fuel supply shall be permitted to generating station up to a maximum of 6% blending by weight.*
>
> *Provided that in such case, prior permission from beneficiaries shall not be a precondition, unless otherwise agreed specifically in the power purchase agreement:*
>
> *Provided also that where a higher blending ratio than that specified under sub-clause (4) above of this Regulation is required, prior consultation with the beneficiary shall be made at least three days in advance.*

<u>Our Views and observations</u>

The Hon'ble Commission has come-up with an approach to address the delay that might be caused due to prior approval from the Beneficiaries under Regulation 64(4) Proviso 1 and 2 where use of alternative source of fuel supply shall be permitted to generating station up to a maximum of 6% blending by weight, further in such cases no prior permission from beneficiaries is required unless

otherwise agreed specifically in the PPA. In cases where a higher blending ratio may be required prior consultation with the beneficiary shall be made at least three days in advance. It is reiterated that MoP at various intervals has directed Generating Companies for blending of imported coal upto 30% and presently it has directed to blend 6% imported coal. It is, therefore, requested to make provisions enabling generators for coal blending upto 30%, where 6-10% imported coal can be used whereas remaining 24%-20% can be met through domestic coal preferably procured through e-auction route and in case of non-availability of e-auction coal, coal procured on nomination basis as domestic private mine may have reject/low grade coal, which would be slightly costlier than linkage and would also ease pressure on national coal shortage. Domestic coal in any case would be much cheaper compared to imported coal and would help to contain burden of imported coal. In general, it has been observed that 1% blending of imported coal leads to 2% increase in ECR. With this understanding it appears that as per Previous Regulations the generators were having flexibility to blend 15% imported coal as the increase in ECR was permitted up to 30% of the base ECR. Therefore, it is requested to increase the proposed 6% of blending to at least 15% by weight.

30. Regulation 70 Clause F

70 (F) Norms for consumption of reagent:

(1) The normative consumption of specific reagents for various technologies for the reduction of emission of sulphur dioxide shall be as under:

....

b) Weighted Average Gross calorific value of lignite as received, in kCal per kg, as applicable for lignite based thermal generating stations:

Provided that the value of K shall be equivalent to 35.2 for units to comply with the SO2 emission norm of 100/200 mg/Nm3 or 26.8 for units to comply with the SO2 emission norm of 600 mg/Nm3;

Provided further that the limestone purity shall not be less than 85%.

<u>Our Views and observations</u>

It may kindly be noted that the assumptions considered for evaluation of normative consumption of Specific Reagent for various technologies for reduction of emission of Sulphur Dioxide would depend on several parameters such as (a) Normative Station Heat Rate (after duly factoring impact of ECS system) (b) GCV of Coal, (c) Sulphur content of Coal (f) Purity of Reagent (g) Design SO2 Removal efficiency of the ECS and (h) Stoichiometric molar ratio of reagent consumption and therefore assigning normative values in some of the cases may not be correct. As such a common empirical formula may be provided to compute the specific reagent consumption for various technologies wherein it is proposed that these parameters may be considered at actual/or as recommended by CEA rather than assigning them predefined values which seems inappropriate.

Further, in the formulation of CEA, the value of SO2 conversion factor has been considered as 0.95 or 95% for which no basis has been given, whereas in most of calculations by bidders nowadays this factor is taken as 100%. Similarly, for computing limestone purity, it may be clarified that the same relates to purity with reference to reactive component of limestone. Thus, in a limestone with purity of say 85%, 5-10% may be non-reactive limestone and, hence, effective purity of reactive limestone shall be in the range of 76.50%-80.75%.

It is also to be noted that while CEA has acknowledged that stoichiometric ratio increases with increase in efficiency of Sox or NOx removal system, it has considered only one value of stoichiometric ratio which is on lower side as per our assessment based on discussions on guarantees with bidders in this regard. Therefore, we have proposed slightly higher stoichiometric ratios, which are practically achievable and are requested to be considered. The details of common empirical formula with relevant details in enclosed in **Annexure – I** for kind consideration of the Hon'ble Commission. It may be noted that this is the same formula that CEA has used, including for computation of K, and incorporates all parameters considered by it.

The proviso to draft Regulation 70(f)(1)(b) provide for a minimum purity of 85% for limestone. We find it prudent to bring to the kind notice of Hon'ble Commission that as per Clause 2 of the Indian Standard (IS-1290-1973), Mineral Gypsum of quality Type IV (Gypsum of 70% to 75% purity) has been specified for cement. Further, Table 1 (Item at Sl. No 6 for Type 4) at Pg. 6 of the IS provides that Gypsum up to 70% purity can be used in cement industry. Only in case of export quality cement, it is indicated that gypsum of 80-85% purity may be used. Accordingly, it is humbly prayed to relax the limestone purity to 70% which is presently kept at 85%.

The relevant extract from the Indian Standards is reproduced below:

"Table 1 Requirements for Mineral Gypsum
(Clause 3.2)

Sl. No.	*Characteristic*	*Requirement for*				*Method of Test (Ref to CL No. in IS: 1288-1973*)*	
		Type 1	*Type 2*	*Type 3*	*Type 4*		
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(7)*
.....							
vi)	*Calcium sulphate (as CaSO4.2H2O), percent by mass*	*96.0, Min*	*85-90*	*85.0, Min*	*70-75[1]*	*12*	*12*

.....

[1] *For export quality cement, gypsum of 80 to 85 percent purity may be used."*

Also, it may be noted that Limestone with lower purity can also be used specially in eastern region plants where low-grade limestone from Jharkhand, Orissa and West Bengal can be sourced. Hence cap on limestone purity may be removed. Further, the variation in the price of the limestone does not vary linearly with the purity and therefore, in case when avenue of utilization of disposal is not available or the overall cost of lower purity limestone is less than high purity levels, flexibility should be given to the Generators to choose the appropriate purity of limestone after having cost benefit analysis of reagent cost plus disposal cost of the byproducts. Therefore, in cases, where utilities are not able to fully use gypsum produced, they may source low quality limestone for reducing reagent cost and, hence, energy cost.

Hence, the Hon'ble Commission may consider providing flexibility to Generators to decide the purity based on demand/market of Gypsum else the effect due to Gypsum being unsellable will lead to an increase in the ECR by 1.5 times to 3 times on account of reagent consumption. Therefore, there is a need for relaxation of limestone purity to minimum of 70% compared to 85% as per the Draft Regulations.

31. Regulation 81 Clause 2

> *(2) The financial gains by the generating company or the transmission licensee, as the case may be, on account of controllable parameters shall be shared between the generating company or transmission licensee and the beneficiaries or long term customers, as the case may be on an annual basis. The financial gains computed as per the following formulae in the case of generating stations other than hydro generating stations on account of operational parameters as shown in Clause (1) of this Regulation shall be shared in the ratio of 1:1 between the generating stations and beneficiaries.*

<u>Our Views and observations</u>

It is observed that the Hon'ble Commission for the sharing of gains has opted for the ratio of 1:1. However, the Hon'ble Commission would appreciate that it takes a lot of efforts, manpower engagement and sometimes even considerable investments to attain even slightest level of operational gains. It is a rational expectation of the developer to meet at least its expenses involved in the process of achieving such operational benefits from such operational gains. Moreover , since Operational norms have been fixed based on actual performance and are efficient norms, there is no logic in sharing gains for better performance with beneficiaries particularly if losses are not shared by beneficiaries. Normative Approach would require that entire gains and loss should be with the generating company. In order to promote efficiency and to generate additional gains, it is requested to the Commission that the benefits may be shared in the ratio of 3:1 instead of 1:1. Where 75% may be retained by the licensee and 25% be passed onto the Transmission Users. Higher sharing would be inappropriate and discouraging for the developers to put further efforts to improve operational performance.

Further, it is reiterated that as operational norms are determined annually, the sharing of gains may be allowed on monthly basis with cumulative monthly as well as annual settlement mechanism based on actual figures. Therefore, the clarity may be provided regarding the period of sharing the gains and losses on annual basis.

32. Regulation 82

> *(1) If refinancing or restructuring of loan by the generating company or the transmission licensee, as the case may be, results in net savings on interest after accounting for cost associated with such refinancing or restructuring, the same shall be shared between the generating company or the transmission licensee and the beneficiaries, as the case may be, in the ratio of 1:1.*

<u>Our Views and observations</u>

It is submitted that though the Commission has allowed the sharing between the generating company or the transmission licensee and the beneficiaries, as the case may be, in the ratio of 1:1,

there still persists an ambiguity regarding sharing of gains due to refinancing of loan as there is no clear methodology defined in the draft Regulations, therefore it is requested to define the methodology of sharing of gains through refinancing in the forthcoming regulations with Illustrative example clearly showing the impact through computation based on present value approach.

Since the Tariff regulation mandates sharing the net saving on interest, after meeting the cost of refinancing or restructuring, only when refinancing results in net savings. This implies following:

(i) The project developer must be able to show that over the balance tenure of the loan to be used for tariff computation, the NPV of the costs of refinancing and the yearly savings in interest cost over this period would be positive. Since the value of this NPV keeps changing at the end of each projection year. There might be a situation in future that the refinanced rate becomes higher than the original interest rate, which may result in loss rather than savings in that year. **In this situation when the NPV upto that year is still positive i.e. there is still net saving, the loss in that year will have to be shared in the given ratio as savings have already been shared.**

(ii) The interest rate considered in the original loan should be fixed as benchmark rate and should not be changed. Any saving accrued by the developer on account of refinancing shall be shared by generator with the beneficiary as long as the net impact of savings is positive in the ratio of 3:1 instead of proposed ratio of 1:1. **However, in case the net impact if negative the developer shall be allowed to recover the impact from beneficiaries**.

33. Regulation 100

100 Public Procurement through Competitive Bidding: The generating company for a specific generating station or for an integrated mine or a transmission licensee shall procure equipment, work and services through a transparent process of competitive bidding.

Provided that under certain exceptional circumstances, equipment, works and services may be procured through other methods, as provided under general financial rules issued by the Government of India and applicable from time to time.

<u>Our Views and observations</u>

We agree with the views of the Commission since the step provides sufficient flexibility to the Developers. However, the Hon'ble Commission is also requested to allow procurement in exceptional cases through limited tendering as per corporate policy to get the work executed at the earliest.

34. Regulation 2

Scope and extent of application. (1) These regulations shall apply to all cases where tariff for a generating station or a unit thereof and a transmission system or an element thereof is required to be determined by the Commission under section 62 of the Act read with section 79 thereof:

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 financial closure 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 of the beneficiaries is obtained and furnished.

Our Views and observations

In case of substantial delay in financial closure of the project, beneficiary should have option to exit from the PPA without any additional liability. Further, compensation to be provided to respective beneficiary for delay. The long-term resource adequacy plan of DISCOM is linked to such long-term PPAs. Any substantial delay leads to power purchase in short-term market at higher price and leads to high power purchase cost and increased burden on end consumer.

35. Regulation 51 Clause 2

(2) In case of a shortfall of overburden removal during a year, the generating company shall be allowed to adjust such shortfall against excess of overburden removal, if any, during the subsequent three years.
(3) In case of excess of overburden removal during a year, the generating company shall be allowed to carry forward such excess for adjustment against the shortfall, if any, during the subsequent three years.

Our Views and observations

It is submitted that such practise may result in increment in the cost of generation for thermal stations, therefore, same may be capped to a level based on performance of thermal station.

36. Additional Suggestions

1. **Clarification on components of invoices on which Rebate is applicable**

Comments: The Hon'ble Commission is requested to provide clarification whether rebate on components of invoices such as ash disposal expenses, Additional O&M expenses, Income Tax, and other reimbursement nature invoices, etc. is applicable or not. This said provision will remove ambiguity w.r.t. components to be considered for allowing rebate.

2. **Referring Dispute to Arbitration on request of parties seeking adjudication of dispute under 2024-29 Tariff Regulations**

Comments: Ld. CERC under Section 79 (1) (f) of the Electricity Act, 2003 as amended from time to time has been granted powers to adjudicate any disputes pertaining to tariff determination of

generating station/ inter-state transmission of electricity and may refer such dispute for arbitration.

Accordingly, it is proposed that Ld. CERC may additionally include a regulation on referring matters to arbitration if so, requested by the parties in petitions filed before it seeking adjudication of disputes involving generating companies or transmission licensee or distribution companies.

3. Provision related to water tax/cess

Comments: In the recent past, it is observed that there are many conflicting judgments being passed by High Courts of various states regarding levy of Water tax/ cess with respect to generation of hydro/ renewable power basis the Ministry of Power's notification dated 25.10.2023 whereunder States have been advised to remove any kind of tax / duty / cess levied in the guise of development fee / charges / fund on generation of electricity from any source, including renewable energy. The High Court of Uttarakhand rendered a split verdict on levy of water cess/tax on hydro generation. In the meantime, the Rajasthan HC has grated stayed on recovery of levy of water cess charges. In this regard it is requested that Hon'ble Central Commission may direct CEA to come out with a uniform policy/ regulation on levy of these tax/ cess on generation of such power.

Annexure-I

Generic Formulation of Reagent Consumption

As stated in the comments, normative consumption of Specific Reagent for various technologies for reduction of emission of Sulphur Dioxide depends on several parameters such as (a) Normative Station Heat Rate (after duly factoring impact of ECS system) (b) GCV of Coal, (c) Sulphur content of Coal (f) Purity of Reagent (g) Design SO_2 Removal efficiency of the ECS and (h) Stoichiometric molar ratio of reagent consumption and therefore assigning normative values in some of the cases may not be correct. As such a common empirical formula may be provided to compute the specific reagent consumption for various technologies wherein it is proposed that these parameters may be considered at actual/or as recommended by CEA rather than assigning them predefined values which seems inappropriate.

In view of above following empirical formulae may be followed for working out reagent consumption in kg/kWh in case of various technologies for reduction of emission of sulphur dioxide:

$RC = \{(SHR/CVPF) \times (S/100) \times (SO_{2Mol}/S_{Mol}) \times SO_{2Fac} \times SO_{2RemEff} \times MR \times (Reagent_{Mol}/SO_{2Mol}) \times (StoRat / RP) \}$..... in kg/kWh

Or

$RC = 1000 \times \{(SHR/CVPF) \times (S/100) \times (SO_{2Mol}/S_{Mol}) \times SO_{2Fac} \times SO_{2RemEff} \times MR \times (Reagent_{Mol}/SO_{2Mol}) \times (StoRat / RP) \}$..... in g/kWh

Where,

RC = Reagent Consumption, in kg/kWh or g/kWh

SHR = Normative Gross station heat rate (duly taking into impact on Normative Heat Rate on due to Emission Controlled System), in kCal per kWh;

CVPF = (a) Weighted Average Gross calorific value of coal as received, in kCal per kg for coal based stations less 85 Kcal/Kg on account of variation during storage at generating station;

(b) Weighted Average Gross calorific value of primary fuel as received, in kCal per kg, per litre or per standard cubic meter, as applicable for lignite, based stations;

S = Sulphur content in percentage,

SO_{2Mol} = Molecular weight of Sulphur Dioxide; 64 g/mol

S_{Mol} = Molecular weight of Sulphur; 32 g/mol

$SO_{2\,Fac}$ = Sulphur to Sulphur Dioxide Conversion factor = 1.00 (and not as per CEA assumption of 0.95)

$SO_{2\,RemEff}$ = SO2 removal efficiency, in %

$Reagent_{Mol}$ = Reagent Molecular Weight in g/mol = 100 for $CaCO_3$ (limestone), 56 for CaO (lime) and 84 for $NaHCO_3$ (Sodium Bicarbonate)

MR = Theoretical Molecular Ratio = No. of Moles of Reagent Required to convert one mole of SO2

StoRat = Stoichiometric ratio of reagent consumption (given in Table below against those
mentioned by CEA for different technologies)
RP = Reagent Purity in percentage (Reactive Component purity),

Since, SO_{2Mol}, S_{Mol}, $SO_{2\,Fac}$ is constant, the formula can be represented in following manner:
RC = K x {(SHR/CVPF) x S x $SO_{2RemEff}$ x MR x Reagent $_{Mol}$ x (StoRat / RP) } in g/kWh
Provided that K = 10 x (SO_{2Mol}/S_{Mol}) x SO_{2Fac} /SO_{2Mol}
= 10 x (64/32)x1.00/64 = 0.3125

Whereas StoRat i.e. stoichiometric ratio of reagent consumption will be in line with recommendations given by CEA for different technologies and enclosed in the Draft as Appendix II. However, in case of conversion efficiency is in between the efficiencies for which CEA has provided the stoichiometric Ratio, prorate may be followed to workout the stoichiometric Ratio: Below table exhibits the Stoichiometric Molar ratio of reagent consumption as mentioned by CEA for different technologies:

Sl. No.	Technology	Molar Ratio	Molecular Weight of reagent (g/mol)	Stoichiometric Ratio given by CEA	Stoichiometric Ratio suggested by us
1	Wet Limestone based FGD System ($CaCO_3$)	1	100	1.05 at all $SO_{2RemEff}$	1.10 at all $SO_{2RemEff}$
2	For Lime Spray Drier or Semi-Dry Flue Gas Desulphurisation (CaO)	1	56	1.35 for around 70% removal efficiency range 1.8 for around 90% efficiency range	1.56 for around 70% removal efficiency Range 2.0 for around 90% efficiency range.
3	For Dry Sorbent Injection System (Using Sodium bicarbinate-$NaHCO_3$):	2	84	0.5 for around 30% removal efficiency range 1.0 for around 50% removal efficiency range 2.0 for around 70% removal efficiency range	1 for around 30% removal efficiency range 1.5 for around 50% removal efficiency range 2.0 for around 60% removal efficiency 2.3 for around 70% removal efficiency range
4	For CFBC Technology (furnace injection) based Generating	1	100	2.0 for around 90-95% removal efficiency range	2.0 for around 90-95% removal efficiency range

	Station ($CaCO_3$):				
5	SNCR (Urea-$(NH_2)_2CO$)	0.5	60	1.1 for 30-40% efficiency	1.6 for 30-40% efficiency
6	SCR (Ammonia – NH_3)	1	17	1.08 for 75-85% efficiency	1.4 for 75-85% efficiency

Similarly, for NOx abatement system

$RC = NO_{xcon} \times NO_{xRemEff} \times MR \times Reagent_{Mol}/NO_{xMol} \times StoRat$ ..... in g/kWh
Where,
NO_{xcon} = NOx concentration after in-combustion control = Design NOx emission concentration x (1-Design Efficiency of In-combustion control) .... In g/kWh (subject to minimum NOx concentration of 750 mg/Nm3 converted to g/kWh with 260 g/GJ and normative SHR)
NO_{xMol} ...= NOx Molecular weight = 46 g/mol
$NO_{xRemEff}$ = Design NOx removal efficiency of SNCR or SCR
StoRat = Stoichiometric ratio
MR = Theoretical Molecular Ratio = No. of Moles of Reagent Required to convert one mole of NOx
Here it is important to note that CEA has considered a fixed NOx concentration of 750 mg/Nm3, which is first brought down to 450 mg/Nm3 by In-combustion burner modification and then to 300 mg/Nm3 by SNCR or to 175 mg/Nm3 by SCR. Accordingly, CEA has computed a fixed number for reagent consumption assuming efficiency of removal in the range 30-40% (stoichiometric ratio 1.1) for SNCR and efficiency of 75-80% (stoichiometric ratio 1.08) considering molecular weight of NO_2 (46). This methodology has to be modified to generic formulation given above as the numbers are for fixed NOx concentration/kWh, fixed efficiency and, hence, stoichiometric ratio, whereas percentage of nitrogen in actual coal and, hence, NOx concentration in flue gases may be higher than 750 mg/Nm3. In such cases, in combustion control may not reduce NOx to 450 mg/m3 even after 300 mg/Nm3 reduction by them. Hence, higher efficiency SNCR and SCR may be required. Thus, needing a generic formulation as suggested above for Sox removal. Further, stoichiometric ratio also increases with increase in efficiency and, hence, higher stoichiometric ratio needs to be taken for higher efficiency than 40% considered for SNCR and 75-85% considered for SCR. Higher ratio may considered as per design.

Annexure-II

CLARIFICATION ON PERIOD OF APPLICATION OF TMF UNDER REGULATION 75 OF TARIFF REGULATIONS 2019

1. It is submitted that instant submission, Tata Power is humbly seeking for clarification on the applicability of the TMF for the entire life of the Project i.e. 35 years as against 25 years from the date of issue of licence as provided under Regulation 75 of the Tariff Regulations, 2019.

1.1 It is to be noted that TMF for the entire life of the project was assured to the investors/Petitioner by this Hon'ble Commission *vide* its Order dated 29.05.2001 in Petition No. 23/2001. Further, the said understanding was crystalised by this Hon'ble Commission in its Regulation 4.10A of the CERC (Terms and Conditions of Tariff) Regulations, 2001 ("**Tariff Regulations, 2001**") and the said entitlement has been upheld by this Hon'ble Commission in subsequent orders as elaborated below. Therefore, in view of the assurance provided to the Petitioner, this Hon'ble Commission may relax Regulation 75 and clarify the period of applicability of TMF on the Petitioner's Project for its entire life i.e. 35 years.

1.2 Further, this Hon'ble Commission may also appreciate that in a recent development, Ministry of Power ("**MoP**") has issued amendment to the Electricity Rules, 2005 on 30.06.2023 and inserted Rules (4A), (4B) and (4C) along with three provisos therein, which read as under:

> *"3. In the said rules, after rule 4, the following rules shall be inserted, namely:-*
> *(4A) Where any entity has been granted licence under section 14 of the Act, the period of the licence shall be in accordance with the terms and conditions of the licence granted by the Appropriate Commission;*
> *(4B) Where an entity is a deemed licensee under the first, second and fifth proviso to section 14 of the Act, the period of the licence shall be twenty five years from the date of the coming into force of the Act;*
> ***(4C) The licence granted by the Appropriate Commission under section 14 of the Act and the deemed licence under first, second and fifth proviso to said section 14 shall be deemed to be renewed unless the same is revoked:***
> ***Provided that such renewal, shall be for a period of twenty five years at a time or for a lesser period, if requested by the licensee****:*
> *Provided further that where the Appropriate Commission has renewed the licence for a particular period before the notification of these rules, the licence shall be deemed to be renewed for that particular period under these rules.*
> *Provided also that this rule shall not apply to the licence granted to transmission developers, selected through tariff based bidding, under section 63 of the Act."*
> [***Emphasis Supplied***]

1.3. Rule (4C) read with its first proviso makes the life of license virtually perpetual with renewal after every 25 years unless revoked or requested for shorter period by the licensee. Therefore, now the Regulation 75 of the Tariff Regulations 2019, which stipulates TMF to be applicable for 25 years from date of license, i.e. validity of license, needs to be read in terms of the said Rule to the effect that TMF shall be applicable for the period of validity of license or the transmission service agreement that may be valid upto the life of the assets.

Re. Historical background regarding application of TMF

1.4 On 26.03.2001, this Hon'ble Commission notified the CERC (Terms and Conditions of Tariff) Regulations, 2001 ("**Tariff Regulations, 2001**") for determination of tariff for the period 01.04.2001 to 31.03.2004. It is pertinent to note that Appendix II to the said Tariff Regulations 2001 provides for the 'Useful Life' of Assets including 'Lines on fabricated steel operating at nominal voltage higher than 66 KV' (i.e. the transmission line of the Petitioner) as 35 years. It may kindly be noted that the Petitioner's assets include only 400 KV and 220 KV AC transmission lines and associated civil structures and there are no other transmission components like Sub-Station Transformers or HVDC links. Relevant extract of Said

Appendix II is reproduced below.

"Depreciation Schedule

Description of Assets	***Useful Life (yrs)***	***Rate Life(yrs) (Calculated w.r.t. 90%)***	
	1	2	3=1*2
(I) Overhead lines including supports:			
(i) Lines on fabricated steel operating at nominal voltages higher than 66 KV	35	2.57	90

....."

1.5 Further, the concept of TMF was recognized in the Order dated 29.05.2001 issued by this Hon'ble Commission in Petition No. 23/2001 wherein this Hon'ble Commission devised an incentive scheme to attract private investors in the field of transmission. Such scheme was conceptualised by this Hon'ble Commission in order to address the need to expedite the investment of private players in the transmission business. Relevant excerpts from the above Order in this respect is re-produced below:

> *"Transmission Majoration Factor (TMF)*
>
> *22. In discussing the elements of "Insurance" and "Target Availability/incentive" for transmission lines, the Commission has mentioned a concept designated as "Transmission Majoration Factor". Introduction of this factor is in due consideration of the fact that the Commission* ***recognizes the need for expediting new investments in the transmission sector. It has also recognized the fact that the private investors, in transmission, have to incur additional liabilities in their pioneering efforts compared to long standing central transmission utility like PGCIL. Accordingly, in respect of such lines executed by private investors, the Commission proposes to allow 10% mark up (pretax) on transmission charges as Transmission Majoration Factor. This would be available only to the new private investors who would like to enter the field.*** *Accordingly, there would be no need to provide for TMF in respect of projects executed by PGCIL. This will not also apply to the HVDC projects to be executed by private investors involving heavy capital investments and do not, hence, justify a special treatment by way of Transmission Majoration Factor. In respect of PGCIL, the development surcharge of 10% provided to it takes care of requirements of TMF allowed for private investors in respect of new investments."*
>
> **[*Emphasis supplied*]**

1.6 The Hon'ble Commission had, while proposing the above Scheme, examined all the aspects of the transmission business including the adequacy of return on the investment and the interest of the consumers over the entire life of the Project. The Hon'ble Commission had envisaged additional Internal Rate of Return ("**IRR**") in the directions for this scheme, which was considered adequate to attract necessary private investments in the Sector. This is evident from the relevant excerpts as follows:

> *"23. The directions contained in the Commission's order shall yield an additional IRR of about 4.5% in US Dollar terms over and above 8.84% indicated by the petitioner. This additional IRR includes the effect of monthly payment of return on equity vis-a-vis the annual return on equity of 16%. By taking into account the effect of payment of depreciation and interest payment on monthly basis as compared to the quarterly or half yearly repayment of loan, the IRR would improve further.* ***The returns that may be earned by the petitioner and other private investors in the light of above directions is considered to be reasonable and adequate to attract necessary investment in the private sector, on the one hand and protect the consumers' interest on the other hand."***
>
> **[*Emphasis supplied*]**

1.7 Therefore, it is clear from the above excerpts that this Hon'ble Commission had proposed the scheme of TMF after due scrutiny of the investment requirement in the transmission sector and the interest of the consumers as well considering its impact over entire life of the Project. Further, this Hon'ble Commission had explicitly mentioned in the above Order, Regulation 4.10A of Tariff Regulations 2001 and other subsequent Orders that such scheme would be available to new entrepreneurs who enter the sector up to a pre-determined period ending 31.03.2004 and as such would be eligible to avail such TMF till the entire life of the Project. This was an unconditional assurance specifically provided not only to attract immediate investments in the Sector but also to assure the availability of such incentive scheme throughout the entire life of the Project which would ensure additional IRR, as mentioned above, to the investors. The relevant excerpts from the above Order are re-produced below:

> *"24. Commission would like to make it clear that the* ***TMF is a one-time measure to encourage private entrepreneurs to promote investments in transmission sector****. We expect that the serious entrepreneurs would seize this opportunity and we also expect that the PGCIL would also expedite urgent action to cover all the critical lines within a limited period in meaningful and constructive cooperation with private investors. Accordingly, the TMF would be available to new entrepreneurs only for the period up to 31st March 2004. This would, thus, be coterminous with the Commission's order dated 21-12-2000 on terms and conditions of tariff.* ***However, the benefit of TMF would continue to be available during the entire life of the project in respect of the investors who enter the transmission sector up to the period ending 31-3-2004.****"*
>
> **[Emphasis supplied]**

1.8 Based on the above, on 21.09.2001, the Hon'ble Commission carried out an amendment to the Tariff Regulations, 2001 by way of CERC (Terms and Conditions of Tariff) (First Amendment) Regulations, 2001 and crystalised the above by introducing Regulation 4.10A to ensure the investors regarding the applicability of TMF for the entire life of the Project. The relevant extract of the said Regulation 4.10A is reproduced below for kind convenience of this Hon'ble Commission:

"4.10A Transmission Majoration Factor In respect of the transmission projects executed through IPTC/JV routes, ***10% (Ten percent) markup (pre-tax) on transmission charges shall be allowed as Transmission Majoration Factor.***
Provided that Transmission Majoration Factor shall not be allowed on HVDC projects executed through IPTC/JV routes.
Provided further that the ***Transmission Majoration Factor shall be allowed during the entire life of the transmission project*** *to the new investor entering the transmission sector through IPTC/JV routes and who has been granted a transmission license under Section 27C of the Indian Electricity Act, 1910, upto 31-3-2004."*

[Emphasis supplied]

1.9 As evident from above, by way of Regulation 4.10A, this Hon'ble Commission assured that new investments will be encouraged by way of TMF and that the same will be applicable during the entire life of the transmission project. The criteria for qualifying for TMF were also specified by this Hon'ble Commission, namely-

(a) It should be a new transmission project;
(b) The new transmission project should be executed through IPTC/JV route; and
(c) The transmission licence (under Section 27C of the Indian Electricity Act, 1910) should be obtained up to 31.03.2004.

Once the above eligibility criteria are fulfilled, the right of enjoyment of TMF becomes absolute, vested and is unconditional and not subject to any further embargoes or conditions or to any review.

1.10 Considering the above, Tata Power Company Ltd. and Power Grid Corporation of India Ltd. formed a Joint Venture ("**JV**") i.e. the Petitioner. The Petitioner was granted a Transmission Licence by this Hon'ble Commission on 13.11.2003 for a period of 25 years in terms of Order dated 22.10.2003 in Petition No. 40/2023 filed by the Petitioner for a grant of Transmission License. The Petitioner, being the only company in such JV route, became eligible to avail the above proposed TMF.

1.11 At this juncture, it is apposite to highlight that various amendments were carried out by this Hon'ble Commission in the Tariff Regulations but the useful life of 35 years for transmission lines specified in Tariff Regulations, 2001 was not altered. Therefore, the Petitioner proceeded with the assurance that its Project would be entitled for TMF for the entire useful life of 35 years.

1.12 Further, in 2004, this Hon'ble Commission promulgated the Tariff Regulations 2004 which did not contain the provision of TMF. Hence, the Petitioner specifically moved a Petition before this Hon'ble Commission seeking clarification on the availability of the TMF for the life of the Project as envisaged earlier. This Hon'ble Commission had, while clarifying the availability of such TMF for the entire life of the project, also noted the settled legal position that the expiry of a temporary statute does not obliterate the rights or obligations under that statute. In view of the above, the necessary clarification as provided by this Hon'ble Commission through the Order dated 01.07.2004 in Petition No. 51/2004 is reproduced below:

" 7. For an answer to the question raised, we consider the background leading to incorporation of Regulation 4.10A in the notification dated 26.3.2001. The Regulation 4.l0A notified on 21.9.2001 was preceded by the Commission's order dated 29.5.2001 in Petition No.23/2001. The Commission recognised the fact that private investors in transmission had to incur additional liabilities in their efforts compared to long standing transmission utilities like Power Grid Corporation of India Limited.

Accordingly, in respect of the projects executed by private investors, the Commission allowed 10% mark up (pre-tax) on transmission charges as Transmission Majoration Factor. The Commission directed that the Transmission Majoration Factor would be available to new entrepreneurs only for the period up to 31.3.2004, ***which implied that the benefit of Transmission Majoration Factor would continue to be available during the entire life of the project in respect of investors who entered the transmission sector up to the period 31.3.2004.***

.....

8. When seen in the light of above background, in our considered opinion, Regulation 4.10A ibid has conferred a substantive right on the petitioner to claim Transmission Majoration Factor. Therefore, despite the fact that no provision for payment of Transmission Majoration Factor is made in the 2004 Regulations, the petitioner shall be entitled to claim the Transmission Majoration Factor throughout the period of licence, which is 25 years from the date of issue."

[***Emphasis supplied***]

1.13 The Hon'ble Commission, therefore, made it clear to Petitioner that even if there is no provision in the Tariff Regulations 2004, it is eligible to claim TMF as per Regulation 4.10A of the Tariff Regulations, 2001.

1.14 It is further submitted that investment in Generation and Transmission Projects are conceived only after evaluation of the risks and return based on projections and available statutory assurances/clearances/consents. This would define the projected IRR which helps the investor to make its decision on the investment. The assurance of availability of the TMF for the entire life of the Project was one such key factor which attracted the Petitioner to invest into a Project extending for a life of 35 years. The IRR of the Project as envisaged initially considered the TMF for the entire lifetime of 35 years for the Project and decision to invest laid entirely on expected returns based on such assurance.

1.15 It is pertinent to note that the objection with respect to allowance and continuation of TMF has been taken by beneficiaries right from the first Tariff Order passed for the Petitioner. In this respect, this Hon'ble Commission has consistently relied upon Regulation 4.10A of Tariff Regulations 2001 (under which the Petitioner was entitled for recovery of TMF for entire life of the Project of 35 years) to uphold Petitioner's entitlement to TMF.

Re. The need for seeking clarity

1.16 Despite there being a clear understanding regarding applicability of the TMF throughout the entire life of the Project, this Hon'ble Commission *vide* its Notification dated 30.01.2019 issued the CERC (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2019 and amended the Tariff Regulations, 2014. The Hon'ble Commission *vide* this amendment inserted a new regulation (49A) after the Regulation 49 of Principal Regulations viz. Tariff Regulations 2014 and restricted the applicability of TMF to a period of 25 years from the date of issue of transmission licence. The relevant extract has been reproduced below:

"49A Transmission Majoration Factor: Transmission Majoration Factor admissible for the transmission projects executed through JV route in terms of Regulation 4.10A of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2001 shall be available for a period of 25 years from the date of issue of the transmission licence."

1.17 Further, the above provision has been carried forward while framing Tariff Regulations, 2019 in Regulation 75 notified on 7.03.2019 as well which provides that:

> *"75. Transmission Majoration Factor: Transmission Majoration Factor admissible for the transmission projects executed through JV route in terms of Regulation 4.10A of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2001 shall be available for a period of 25 years from the date of issue of the transmission licence."*

1.18 The premise under which the above amendment was introduced (which was carried forward in Tariff Regulations, 2019) has been explained by this Hon'ble Commission in its Statement of Reasons to the CERC (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2014 as follows:

> "*6.0.* ***Regulation 4.10A in the 2001 Tariff Regulations specifies that the TMF will be available for the entire life of the transmission project. The life of a transmission line was specified as 25 years in the 2001 Tariff Regulations and accordingly, transmission licence was granted vide order dated 22.10.2003 in Petition No. 40/2013 to Powerlinks for a period 25 years****. However, the useful life of the transmission line has been specified as 35 years in 2009 and 2014 Tariff Regulations.* ***In our view, the promotional scheme of TMF should be confined to the useful life specified in the 2001 Tariff Regulations and the transmission licence granted to Powerlinks.*** *Accordingly, the incentive of TMF granted to Powerlinks shall be available only for a period of 25 years from the date of issue of licence. This aspect needs to be clarified as the useful life of the transmission assets has been subsequently enhanced from 25 years to 35 years. The Commission has decided to issue second amendment to the 2014 Tariff Regulations clarifying the period for which TMF would be available.*"
>
> [***Emphasis supplied***]

1.19 It can be seen from the above that this Hon'ble Commission had inadvertently considered the useful life of transmission line as 25 years under the Tariff Regulations, 2001. Whereas, as elaborated hereinabove, the useful life of transmission line under the said Regulations is 35 years. Therefore, the Hon'ble Commission has inadvertently considered 25 years instead of 35 years for the purpose of allowance of TMF. The above submissions are also substantiated by the following:

(a) This Hon'ble Commission, in its Order dated 12.12.2002 in Petition No. 25/2002 – *PGCIL v. BSEB & Ors*. has itself observed that the useful life of a transmission line as per Tariff Regulations, 2001 is 35 years. Following are the relevant extracts from the said Order:

"*27. One asset is in operation for about 8 years and three assets for about 7 years. Therefore, on an average entire assets of the project are in operation for about 7 years as on 1.4.2001****. As per the notification dated 26.3.2001, the useful life of the transmission line at 66 kV and above is 35 years****...*"

[***Emphasis supplied***]

(b) Further, the observation of this Hon'ble Commission that since the useful life specified under the Tariff Regulations, 2001 was 25 years and hence the Transmission Licence for 25 years was granted to the Petitioner is erroneous and the same is evident from the following:

i. This Hon'ble Commission in its Order dated 14.06.2001 in Petition Nos 111/2000 and 118/2008 in the matter of grant of Transmission License – Procedure, Terms and Conditions of License, etc., *inter alia*, while deliberating on the issue of term of transmission licence observed that the transmission licence should be consistent with the useful life of the transmission asset. In this regard, this Hon'ble Commission made the following findings:

> "*32. ... The two major equipments used in transmission are transformer and lines, the fair life of transformer is 25 years and that of transmission line is 35 years. However, in actual practice, the life of these equipment is may be more than this. We are of the opinion that the term of the license should be relatable to life so that normally no major capital investment is required on replacement of the equipment during the license period.* ***Accordingly, we direct that the term of the License should appropriately be 30 years***."
>
> [***Emphasis supplied***]

ii. It is pertinent to state that the transmission licence granted to the Petitioner was for 25 years only on account of the fact that the licence was granted by this Hon'ble Commission to the Petitioner on 13.11.2003 (i.e. after promulgation of the Act) in terms of the Order dated 22.10.2003. The term of 25 years is in accordance to Section 15(8) which prescribes that '*a licence shall continue to be in force for a period of twenty-five years unless such licence is revoked.*'.

iii. Further, the above understanding has been recorded by this Hon'ble Commission in the Explanatory Memorandum to CERC (Procedure, Terms and Conditions for grant of Transmission Licence and other related matters) (Amendment) Regulations, 2010 wherein it was, *inter alia*, observed that:

> "*The Central Commission while considering the applications by various project developers for grant of transmission licence have observed that while the useful life of the transmission asset is normally considered as 35 years, transmission licences are issued for a period of 25 years under the provisions of Section 15 (8) of the Electricity Act, 2003 (the* Act)..."

(c) From the above, following emerges for consideration of this Hon'ble Commission:

i. The useful life of a transmission line under the Tariff Regulations, 2001 was 35 years instead of 25 years; and

ii. The term of licence granted to the Petitioner for 25 years was not on account of the useful life being 25 years rather it was in accordance to Section 15(8) ofthe Act.

1.20 In light of the foregoing submissions, it is evident that even this Hon'ble Commission while framing the above regulations has appreciated the benefit granted *vide* Regulation 4.10A of the Tariff Regulations, 2001. However, while considering the useful life for determining the period for which TMF can be availed, this Hon'ble Commission inadvertently considered useful life as25 years instead of 35 years as provided under the Appendix II of the Tariff Regulations, 2001.

1.21 Accordingly, the following submissions may kindly be considered and according clarification may kindly be provided that TMF for Powerlinks had been granted for entire life of the project:

(a) The Petitioner was granted the benefit of TMF in terms of Regulation 4.l0A notified on 21.09.2001 which was preceded by the Hon'ble Commission's Order dated 29.05.2001 in Petition No. 23/2001.

(b) The applicability of the above TMF has been upheld by this Hon'ble Commission in its Order dated 01.07.2004 in Petition No. 51/2004. This Hon'ble Commission recognised that the Petitioner's entitlement to TMF is a vested right which has been granted under Tariff Regulations, 2001 and it ought not be revoked. In this regard, the Hon'ble Commission delved deep into the meaning of vested right to decide the above matter by relying upon the following:

i. The term "vested right" is defined in Black's Law Dictionary (7th Edition) at page 1324 as:

> *"A right that so completely and definitely belongs to a person that it cannot be impaired or taken away without the person's consent."*

ii. Further, the term "vested" (adj.) is defined in Black's Law Dictionary (7th Edition) at page 1557 as:

> *"That has become a completed, consummated right for the present or future enjoyment; not contingent; unconditional; absolute. A co-joint reading of the above reveals that a vested right is a right independent of any contingency and it cannot be taken away without consent of the person concerned."*

iii. The word "vest" is normally used where an immediate fixed right in present or future enjoyment in respect of a property is created. With the long usage the said word "vest" has also acquired a meaning as "an absolute or indefeasible right" ref. *Howrah Municipal Corpn.* v. *Ganges Rope Co. Ltd.*, (2004) 1 SCC 663.

(c) In view thereof, TMF was being allowed to the Petitioner in subsequent tariff periods also. However, the difficulty arose when this Hon'ble Commission instead of allowing the TMF for the entire useful life of the Project i.e. 35 years, restricted the same to 25 years for the period of licence.

(d) The above restriction to 25 years was done on the basis that Tariff Regulations, 2001 prescribes useful life for Petitioner's Project as 25 years. Whereas, as demonstrated herein above, the useful life under Tariff Regulations, 2001 is 35 years. Further, it was incorrectly inferred that license was granted for 25 years on the basis of life being 25 years.

(e) The clarification becomes all the more necessary after notification of the Electricity (Amendment) Rules, 2005, which make the license renewal automatic after 25 years.

(f) Therefore, the above difficulty may be appreciated by this Hon'ble Commission as otherwise the entire purpose of TMF granted to the Petitioner under Tariff Regulations, 2001 would be rendered otiose.

1.22 It is submitted that in case, the instant submission is not allowed then grave prejudice would be caused to Powerlinks which will have a direct bearing on the viability and feasibility of the Project.