FICCI's Representation on

"Draft Central Electricity Regulatory Commission (Terms and Conditions of Tariff)(First Amendment) Regulations, 2020"

Submitted to:

Central Electricity Regulatory Commission

Submitted to CERC on 15th May 2020

Recommendations on 'Draft Central Electricity Regulatory Commission (Terms and Conditions of Tariff)(First Amendment) Regulations, 2020'

A) Central Electricity Regulatory Commission published a Consultation Paper on 'Draft Central Electricity Regulatory Commission (Terms and Conditions of Tariff)(First Amendment) Regulations, 2020' on 1st April 2020. CERC had invited comments/suggestions from the stakeholders on the Consultation Paper due for submission by 15th May 2020.

B) Over-arching comments/suggestions on the Draft regulations:

1. At the outset, FICCI would like to congratulate Central Electricity Regulatory Commission (CERC) for coming up with norms with regards to commissioning of emission control systems (ECS) and necessary tariff structure to ensure determination and recovery of capital and operating costs for such emission control systems. These steps will definitely help in addressing some of the regulatory uncertainty being faced in compliance to the new emission norms by thermal power plants.

C) Clause-wise comments/suggestions to draft Regulations :

S.N.	Clause No./ Regulation	Amendment	Comments
1.	2. Amendment to Regulation 3 of Principle Regulation	2.4 Clause (48) of Regulation 3 of the Principal Regulations shall be substituted as under: "(48) 'Plant Load Factor' or '(PLF)' in relation to a thermal generating station or unit thereof or a given period means the total sent out energy corresponding to scheduled generation during the period, expressed as a percentage of sent out energy corresponding to installed capacity in that period and shall be computed in accordance with the following formula:	1. In the definition of PLF, "a thermal" and "thereof or" may be corrected to "a thermal" and "thereof for" respectively. 2. AUXen should be replaced with AUXe at both the places in line with definition of Auxiliary energy consumption for emission control system 'or' AUXe as proposed at Sl. No 2.1 of the draft amendment. Further, since there may be requirement of one ECS for meeting each revised parameter of emission norm (e.g. FGD for SOx, De-NOx for NOx, ESP for Particulate matter and ZLD for water norm) and they may not only have different auxiliary consumptions but may also be installed at different times and may be needed as per requirements of each plant,

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		PLF = 10000 x Summation ($SGi/[NxICx$ 100$-AUXn-AUXen$] for i=1 to n Where, IC = Installed Capacity of the generating station or unit in MW, SGi= Scheduled Generation in MW for the ith time block of the period, N = Number of time blocks during the period, AUXn= Normative Auxiliary Energy Consumption as a percentage of gross energy generation; and AUXen = Normative Auxiliary Energy Consumption for emission control system as a percentage of gross energy generation, wherever applicable."	it is proposed to define an additional term "Auxen" which would be the normative auxiliary consumption of nth ECS required for meeting each norm. "Auxe" would, therefore, be defined as sum of all Auxen. following formula may be inserted in the definition to bring further clarity. AUXe = $\sum_{n=1}^{n} AUXen$, AUXen is Normative Auxiliary Energy Consumption in the nth emission control system as a percentage of gross energy generation; 2. AUXen shall also include additional auxiliary power consumption of ESP [in case ESP refurbishment have been carried out to meet new SPM norms] and Auxiliary Power consumption of ZLD Plant in case ZLD is required to meet specific water consumption. 3. It may be clarified whether separate energy meters will be required for measuring AUXen.
2.	4. Amendment of Regulation 9 of the Principal Regulations: And Regulation 42A	4.1. A new proviso, namely, Fourth Proviso shall be added to Clause (1) of Regulation 9 of the Principal Regulations as under: "Provided also that the generating company shall file an application for determination of supplementary tariff for the emission control	In this regard, further clarity is required on following aspects as present proposed amendment would not only require multiple petitions to be filed for each station but also there would not be any tariff available on the date of operation for billing to beneficiaries: 1. Determination of Tariff in case when there is more than one emission control system (ECS) installed for a generating unit

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		system installed in the coal or lignite based thermal generating station in accordance with these regulations not later than 60 days from the date of operation of such emission control system."	with different dates of operation. 2. Determination of Tariff when multiple units are there in a generating station with more than one emission control system with different dates of operation. Further, there has been a proposal for adopting the same structure of supplementary capacity charges recovery as has been specified for recovery of capacity charge for the main station. Accordingly, the recovery has been proposed to be linked to declaration of availability during peak/off peak hour of the day or season of year. This would also not be possible to implement for part year of operation of each ECS that are expected to be spanned for installation any time during FY 21 and 22. Moreover, looking at present progress of such systems in the country it is most likely that complete installation of such systems may go upto FY 24, which is the last year of current control period. Further, since the country does not have experience of operation of such systems, there may be initial teething problems with each ECS during first 6-12 months of its operation and it may not be possible for the station to adhere to declared availability during peak/off peak hours for reasons beyond its control. In order to simply the procedure for determination of Supplementary Tariff and recovery of Tariff as an when ECS achieves COD, it is suggested to determine provisional tariff for each emission control system to be installed at the Generating Station for its multiple units based on provisional Capital Cost as

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			per in-principle approval granted by Hon'ble Commission subject to final true-up after commissioning of all ECS for the Generating Station at the end of the current Control Period. With provisional Tariff in place, Generating Station will have determined fixed amount of monthly Supplementary Capacity Charges available to be billed for each emission control system as an when it gets commissioned (on pro-rata basis for balance part of the year) and Supplementary Energy Charges may be billed as per notified Regulations. As and when an emission control system achieves COD, Generating Companies on pro-rata basis will bill the supplementary capacity charges for that ECS system without its linkage to peak/off peak hour or season for the current control period i.e. upto 31.03.2024. For illustration, if a generating station has two emission control systems to be installed, namely FGD system and in combustion System. CC = Prevailing Capacity Charges for the Station SCC1 = Supplementary Capacity Charges approved by Hon'ble Commission for FGD system SCC2 = Supplementary Capacity Charges approved by Hon'ble Commission for in combustion system So, after commissioning of FGD system, generating station would start recovering supplementary capacity charges approved against FGD system on prorata basis in addition to it prevailing capacity

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			charges for the station i.e. Capacity Charges Billed = CC + SCC1 (prorata basis) similarly, after commissioning of in combustion system, following capacity charges will be billed. i.e. Capacity Charges Billed = CC + SCC1 (prorata basis) + SCC2 (prorata basis) Regulation 42A, therefore, needs to be amended accordingly.
3.	6.3 Amendment of Regulation 15 of the Principal Regulations.	**<u>Supplementary Capacity Charges:</u>** **"15. (2) Supplementary Capacity Charges:** Supplementary capacity charges shall be derived on the basis of the Annual Fixed Cost for emission control system (AFCe). *The Annual Fixed Cost for the emission control system based on capital cost shall consist of the components as listed at (a) to (e) of Clause (1) of this Regulation."*	**"(2) Supplementary Capacity Charges:** Supplementary capacity charges shall be derived on the basis of the Annual Fixed Cost for emission control system (AFCe). *The Annual Fixed Cost for the emission control system based on capital cost shall consist of the components as listed at (a) to (e) of Clause (1) of this Regulation."* Further provided the compensation of incidental charges including but not limited to loss of Capacity Charges due to shut down during Construction, penalty payable under PPA (if any), Loss of Ex-Bus Saleable Capacity, LTOA charges for reduced despatchable capacity etc. shall be reimbursed as per the actuals on case to case basis. Generators are free to approach the Commission for the same post Commercial Operation of the Emission Control System (FGD system). • There are no provisions in the existing regulations that address the incidental expenses associated with emission control System. • i.e. Loss of capacity charges during Shut down, Loss of Revenue due

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			to reduced Capacity on account of Increased Aux. etc. • Such loss of capacity charge, LTOA charges, etc. may be allowed to be recovered in equal instalments over a period of 6 months after COD of FGD. Therefore as separate provisions is added to capture the same.
4.	12. Amendment of Regulation 30 of the Principal Regulation	12.1. In the first proviso under Clause (2) of Regulation 30 of the Principal Regulations, the words "excluding additional capitalization due to Change in Law," shall be deleted and at the end of the said proviso, the words and expressions "or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole, shall be considered;" shall be added.	The draft proposes to remove the existing norms which provides for return on equity (post-tax) at the rate 15.5% on the equity infused for installation of additional facilities as required on account of any change in law event including the ongoing capital intensive projects to meet the revised emission norms as issued by MoEFCC vide notification 31.12.2017 and now stipulate to service such equity at the cost of borrowing from financial institution. We would like to draw attention of the Hon'ble Commission on following aspects which are relevant and noteworthy in this regard: 1. **Dispensation in deviation to principle of Regulatory Certainty**: Hon'ble Commission may kindly appreciate the fact that Investment is undertaken by the Developer after evaluation the risk perception including regulatory certainty taking in to account the regulatory framework prevailing at the given point in time and after having reasonable understanding of revenue flow from such investment over the useful life of the asset. Even lenders provide loan at different rates to different project developers only after understanding the risk involved in the investment and revenue to be earned by the project developer and its ability to service the loan. Hon'ble Commission only after due prudence check and

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			considering inputs/suggestions received from all stakeholders notified CERC Tariff Regulations 2019 on 7.03.2019 thereby bringing clarity for all for holistic growth of the sector and any alteration to the notified norms frequently will adversely impact the sentiments of the investors/lenders. It is pertinent to mention that Electricity Act, 2003 and the National Tariff Policy as amended from time to time also specify for regulatory certainty. Even the key objective behind the idea of MYT framework is to ensure Regulatory certainty for all at least during the control period. In light of above mandates and considering settled position in law, the Hon'ble Commission being a quasi-judicial body is therefore required to ensure regulatory certainty for all. Any modifications now will defeat the entire policy framework. 2. **Detrimental to investor sentiments, jeopardize the Capital Investment Plan for revised emission norms *per-se* and likely to increase the Tariff**: It is further submitted that Based on such notified norms many Generators have already entered/going to enter into arrangements for funding the capital-intensive projects for installation of de-SOx, de-NOx and other required systems to meet the revised emission norms based on funding commitments as per the already notified Regulations in 2019. Any revision of financial norms, which results in less return would send a wrong signal and would be detrimental for investments in the country jeopardizing the investments required for meeting revised emission norms. At this juncture, it is also relevant to reproduce the findings of the Hon'ble Commission provided in the statement of Reasons to the CERC Tariff Regulations 2019 while allowing return on equity

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			required to comply with Change in law event: *10.1.2 The Commission has considered the stakeholders' comments/suggestions. The Commission is of the view that in cases where the additional capitalization has become necessary to comply with the 'Change in Law' event, normal rate of return of equity should be allowed instead of allowing rate of return on equity at weighted average rate of interest on actual loan portfolio. Therefore, first proviso to clause (2) of Regulation 30 has been revised suitably* 3. In view of above findings, it is submitted that compliance of emission norms would be requiring huge investment and in order to tie-up for financial arrangements amid huge NPAs in the power sector, it is crucial to have in place suitable norms which facilitate the funding and such curtailment would lead to delay in getting project funding and at higher costs. At present also, funding is available to only few Generators with increased interest rate, non-compliance of the emission norms, closure of thermal generating stations and ultimately leading to more NPAs, higher cost of generation and huge impact on sector and nation at large. 4. In this regard it is further relevant to note that with such norms in place generating companies would prefer to increase debt component or theoretically even going for 100% debt financing. The increase in debt component in the project would increase the risk of the lenders resulting into increased interest rates. For the purpose of illustration, considering the existing debt/equity ratio of

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			70:30, cost of debt at 8.5% and Post Tax ROE at 15.5% the WACC woks out to 10.6%. With 100% debt financing when everyone would be needing it would not be less than 11% to 12% for long term loan. So ultimately it will increase the overall WACC increasing the Tariff and defeating the sole intent of reduction in Tariff by such dispensation. Further, increase in the interest rate will have compounding impact on Capital Cost with increase in IDC and thereby increased Capital Cost. 5. With the power sector being a stressed sector and generators also being financially stressed in the process, no bank will agree to fund 100% of the cost of Revised Emission Norms. Even if banks agree to fund 100%, the financial ratios of the project company get jeopardized thereby crippling them further. 6. It may also be noted that such amendment will bring discrimination among the generators who have entered into/finalised an agreement with lenders and agreed for equity component commitment basis the principal regulations and financial closure for the project is completed compared to generators who are in discussion or yet to complete the financial closure. The generators having made equity commitment anticipating return of 15.5% will unnecessarily get lower return for reasons not attributable to them compared to legitimate recovery as promised in the main regulations. In other words, it will be like going back on promise made under the principal regulations attracting the doctrine of promissory estoppel. As stated above, it will also bring discrimination amongst generators taking informed decision now

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			based on this amendment compared to those having financial closure done/committed. **Equitable treatment of cost of debt and cost of Equity which is in deviation to financial principles**. As per extant regulations, cost debt is serviced through IDC before commercial operation (COD) of the asset and after COD through interest on Loan. Further, loan provided by the lenders are protected under the law whereas the equity infused by the project is only entitled for return after COD of the plant i.e. only after overcoming all the project encumbrances. Further, any cost overrun is only allowed to the extent it is found prudent by Hon'ble Commission and in case of disallowance of such cost overrun the developers have to take the hit. Therefore, noting the risk involved in equity infusion and in wake of financial prudence principal regulations allowed higher return on equity part for remaining useful life of the assets. Giving equal treatment to cost of debt and cost of equity will not be justified in light of above reasons and will be in deviation to basic financial principle for investments that risk premium over and above risk free rate (debt rate) is attached to every equity infusion. It may further be noted that risk of the Generating Assets and FGD are same whether be on equity invested at the time of commissioning or during operational phase, so it should carry the same return as that of Assets pertaining to generating station, i.e. 15.5%. In this regard it is submitted that even any additional capitalization needs to carry the same return but we are not contesting that herein, however, it may be noted that Additional Capitalisations not covered under change

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			in law are not mandatorily required and the generating station has a choice/discretion to carry out the additional capitalization or not or even its extent but here in the case of Additional Capitalization due to Change in Law event, it is mandatorily required to be done and there is no choice but to implement it. Moreover, considering the existing generating stations having 10-12 years remaining useful life, with gestation period of 28 to 30 months for implementation of capital intensive de-SOx and de-NOx system is required to be given higher rate of return on equity to have suitable IRR for the project. Amid such difficultly, further reducing the return on equity would be unviable proposition for the developers. In this regard, it is pertinent to note that upto 90% of the cost of ECS is allowed to be recovered through depreciation, which entails an inherent risk of under-recovery of cost in case under-recovered part of cost/residual value is not recoverable through sale of assets. Hence, equal treatment cannot be given to debt and equity funds in such assets. 7. **Brings disparity between the existing and new Generating Stations**: It is highlighted that as per proposed dispensation, capital investment required to be incurred for revised emission norms will fall under Additional Capitalization for existing Generating stations whereas for new Generating stations it will be part of the initial investment. As per draft dispensation on one hand it allows ROE at 15.5% for new Generating stations whereas for similar investment

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			existing Generating stations would be eligible for ROE at cost of debt lower than 15.5% which is unjust and bad in law. 8. Also, different developers will have different cost of debt and such circumstances will lead to different cost for servicing the equity infusion for the emission projects. Further, proposed alteration will also bring inefficiencies in the system as financial lenders will have edge to charge higher interest rate and secondly reducing interest cost, if any on account of re-financing of loan will simultaneously be a dis-incentive to the generator by erosion of equity to that extent. 9. **Impact of unforeseen challenges associated with implementation and Operation and Maintenance of de-SOx and de-NOx systems**: As you may be kindly aware the technologies to be implemented for meeting revised emission norms is at very nascent stage. Most of the challenges which would occur while implementing, operating and maintaining these systems is yet to be ascertained and will come with time and may vary based on project specifics. The risk involved is no less that setting up a new power project with vast experience and resources available and, therefore, investment either for new generating station or for meeting the revised emissions norms should be given an equal treatment. Further, Hon'ble Commission while giving the draft Operational norms has already provided a constrained norm and, therefore, for meeting the loss due to minor variations on account of such tightened norms it is required to provide for minimum return of 15.5% on the equity infused to cover such risks and to avoid approaching Hon'ble

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			Commission for compensating such cost variations by relaxations. Moreover, developers are also required to meet expenses like performance pay to the employees, donations, provisions for losses on sale upon early expiry of assets and CSR expenses through risk premium only and, thus, reduction in return of equity will further hit the overall return of the project for reasons not attributable to the developers. It may be noted that ECS process is similar to that of generating unit i.e. reagent handling/transportation, reagent consumption/burning etc, so parity is required to be maintained with Generating Unit. 10. In light of above submissions, it is requested that Hon'ble Commission may kindly retain the existing norms of allowing a return on equity of 15.5% (Post tax) on equity infused for the additional capitalisation incurred on account of any 'Change in Law' event for any project.
5.	14. Amendment of Regulation 33 of the Principal Regulations	**Depreciation:** "**33. Depreciation:** ,…..(9) The depreciation of the emission control system shall be computed from its date of operation for the balance useful life or extended life of the generating station, as the case may be."	**Depreciation:** "**33. Depreciation:** ,…..(9) The depreciation of the emission control system shall be computed from its date of operation for the balance useful life or extended life of the generating station, as the case may be. Provided that project life for thermal plants is fixed at 25 years in the tariff regulations, depreciation after the 12 years of COD of emission Capex may be spread in the balance life of the plant.

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			Since most of the plants are already operational for more than 5-10 years and balance life is significantly less, it is important that depreciation allowed in higher during the balance life of the project.
6.	15. Amendment of Regulation 34 of the Principal Regulations	15.1. A new clause, namely, Clause (aa) shall be inserted after Clause (a) of Regulation 34 of the Principal Regulations as under: "(aa) For emission control system of coal or lignite based thermal generating stations: (i) Cost of limestone or reagent towards stock for 20 days corresponding to the normative annual plant availability factor; (ii) ..... (iii) ..... (iv)	In the proposed dispensation while introducing new norms for computation of normative working capital requirement for emission control system for coal or lignite based thermal power plant, the draft amendment has only considered the reagent cost towards stock for 20 days which is lying in stockyard but has not considered the cost towards reagents for 30 days at NAPAF for which advance payments or regular payments are being/shall be made during the entire month. The consumption and replenishment of stock is a continuous process and in order to maintain the same, the generators will be required to pay in advance or immediately upon daily receipt for the reagents to have timely loading, transportation and unloading at the site. In this process substantial fund is blocked during the entire month and therefore it ought to be a part of the working capital requirement. While some contracts may have advance payment clause or in other cases it may be based on receipt but there is hardly any difference between the two as payments for daily receipts become due immediately on daily basis. So, in any case it is not that payment is made after a month and payment becomes due the moment goods are received. In case, some suppliers agree for credit and for monthly billing they would seek appropriate compensation for late payment and, hence, it will also come with additional high interest cost ultimately to be borne by end consumers and is not preferable in power

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			industry. As consumption of reagent is on daily basis and replenishment is required to be done on daily basis working capital requirement equivalent to cost of reagent at NPAF is required for 30 days. Even in the case of computation of Working Capital for coal/limestone supplies whether domestic or imported, cost towards advance payment made to coal or lignite and limestone companies for cost of coal or lignite and limestone for generation at NAPAF for 30 days is stipulated in the extant Tariff Regulations. At one hand Hon'ble Commission has acknowledged the due process and commercials involved while sourcing the coal and on the other hand is deviating from such premise and fundamentals while sourcing reagents for emission control systems which is contradictory and needs a revisit. While advance payments in case of coal supplies is standard practice in India, this may not always be the case with Limestone supplies but working capital to meet daily needs would always be required in either case. Doing away with such norms will impact the liquidity of the generators impacting sourcing of reagents thus impacting capacity declarations even after having primary fuel in stock. In view of above submissions, it is most humbly requested to include the norm of 30 days towards cost of limestone or reagent for generation corresponding to the normative annual plant availability factor for computation of normative working capital for emission control system of coal or lignite based thermal generating stations.

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			Further, Commission has not considered Efficient Ammonia-Based Desulfurization Technology (EADS) as one of the efficient technologies available for emission control. Request Hon'ble CERC to consider the same for inclusion in this amendment.
7.	16. Amendment to Regulation 35 of the Principle Regulation	16.2. Sub-Clause (7) of Clause (1) of Regulation 35 of the Principal Regulations along with its proviso shall be substituted as under: "(7) The operation and maintenance expenses on account of emission control system in coal or lignite based thermal generating station shall be 2% of the admitted capital expenditure (excluding IDC & IEDC) as on the date of its operation, which shall be escalated annually at the rate of 3.5% during the tariff period ending on 31st March 2024: Provided that income generated from sale of gypsum or other by-products shall be reduced from the operation & maintenance expenses."	It is submitted that as per our estimate the O&M expenses including the manpower cost and routine maintenance spares work out to be approximately 5% of the Capital cost excluding IDC and IEDC. However, as Hon'ble Commission may deem fit, may continue with the proposed norms but include the provision for true-up at actuals. Once Hon'ble Commission will have adequate data backup during this control period, it may decide the generic norms thereafter. **Further, in the proposed dispensation Hon'ble Commission has provided for adjustment of Income generated from sale of gypsum and other by products.** In this regard it is submitted that saleability of gypsum depends upon the quality and demand-supply scenario in the nearby area of the Plant. Further, the quality depends upon the purity of Limestone, availability of the same in the market, cost associated with it, the process and other relevant factors and therefore it is too early to estimate full saleability and revenue from the same. Secondly, it also depends upon the demand-supply situation in the market, with installation of FGD system in India, supply of Gypsum would increase multi fold whereas demand may not increase proportionately. Also, preference will be

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			given to those plants which are close by to such cement plants which are the major consumers of gypsum. Therefore, such unutilized gypsum would be necessarily required to be disposed off in other possible way as recommend by pollution control boards which involves costs. Hence, it is humbly requested not to consider any revenue from gypsum and other by-products sale at this pre-mature stage and should be considered only while truing-up. However, the costs associated with disposal of byproducts need to be allowed on projection basis, which may be trued-up later based on actuals. In case, Hon'ble Commission wishes to retain the provisions Sub Clause (7) of Clause (1) last para may be suitably revised as under to allow for the cost which may be required for disposal of gypsum and other by products after prudence check as the same would be grossly beyond the control of the generating stations: "(7) The operation and maintenance expenses on account of emission control system in coal or lignite based thermal generating station shall be 2% of the admitted capital expenditure (excluding IDC & IEDC) as on the date of its operation, which shall be escalated annually at the rate of 3.5% during the tariff period ending on 31st March 2024: Provided that income generated from sale of gypsum or other byproducts shall be reduced from the operation & maintenance expenses and **expense incurred for disposal of byproducts including gypsum shall be allowed on actual basis in operation & maintenance**

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			expense as the case may be."
8.	21. Amendment of Regulation 42 of the Principal Regulations	21.1. In the proviso under the formula under Clause (2) of Regulation 42 of the Principal Regulations, the words "or installation of emission control system, as the case may be" shall be inserted after the words "Renovation and Modernisation".	Extant Regulations provides for recovery of O&M Expenses and interest on loan for the period of shutdown undertaken for Renovation & Modernisation of the Generating Unit and through the proposed dispensation, Hon'ble CERC aims to extend such treatment for the shutdown period as may be required for installation of emission control system only on the reasoning that it requires considerable shutdown alike Renovation and Modernisation activity. However, we would like to draw the kind attention of the Hon'ble Commission towards following aspect relevant in this regard: 1. **Incorrect Comparison of outage period under Renovation and Modernisation (R&M) equivalent to outage required for installation of Emission Control Systems**: Renovation and Modernisation of the Generating Units are normally taken up after completion of the useful life when as such there is no or only small liabilities exist which it are required to be serviced. Importantly, it is undertaken as decided by the parties for life extension of the Plant to extend benefits of lower tariff to beneficiaries thereafter. The investors, therefore, would have received the envisaged return/depreciation/interest during the entire useful life of the Project in case of R&M done after useful life but since ECS are being installed during useful life the envisaged return/depreciation/interest would need to be provided during shutdown. So, treatment of Tariff as provided in the extant Regulation is accepted by the parties in case of R&M whereas the

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			outages required for installation of Emission Control Systems is on account of a Change in Law event to comply with revised emission norms and is not attributable to the generator. Hence, it would not be correct to correlate the two outages and to extend the treatment of tariff as is done in case of R&M to the shutdown period required for installation of emission control system. The Hon'ble Commission may also appreciate that if part of that outage is subsumed in the Annual Outage we are saving burden on the consumer to that extent and whatever further optimization is required in shutdown will be carried out in discussion with all beneficiaries and Regional Load Despatch centres. Also, R&M Shutdowns are generally for longer and continuous duration, whereas shutdown for installation of ECS shall be for shorter duration and intermittently for each Unit/ECS installed. 2. **Depriving Generating Companies from full recovery of Fixed Charges will be in deviation to the settled principle for compensation on account of change in law event:** In catena of judgments, it has been decided to fully compensate the party for any hardships arising on account of Change in Law event such that it is reinstated to same economic position as if change in Law event has not occurred. However, amending extant regulations to only deprive the legitimate recovery of the Generators will cause significant financial damage to Generators for reasons not attributable to them and will be bad in law and will send a wrong signal in the sector which is already overburdened with stressed/idle assets. Though, Generators are obligated to minimize the outage duration in discussion with beneficiaries and co-

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			ordination with respective RLDCs/SLDC but under recovery of fixed charges on account of outage period which is required due to change in law event and not caused by Generators will be unfair and will not be in consonance with the objective of the Electricity Act and Tariff Policy which prescribes for regulatory certainty and to balance the interests of all stakeholders and not be solely concerned with consumer interests. Also, it is abundantly clear from enabling Regulations under the CERC Tariff Regulations 2019 that any costs arising on account of any uncontrollable reasons after due prudence check shall be allowed to be trued-up and same has to be passed onto the beneficiaries under the cost-plus method. Hon'ble Commission has already in catena of Orders acknowledged the promulgations of revised norms to be a change in law event and, therefore, costs arising on account of it need to be passed on as per the existing law. Amending the existing law subsequently to reduce the quantum of costs is not in consonance with the legislative intent of the Act nor the Tariff Regulations 2019 which is binding on all stake holders. 3. **Contrary to earlier reasoning and objective behind extant Regulation**: Notwithstanding above comments, it is also important to understand 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:

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			"…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. ……"* 4. 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

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			allow depreciation on case to case basis, if any. However, contrary 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. 5. 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

S.N.	Clause No./ Regulation	Amendment	Comments
			obligation to lenders towards working capital loan and will impair the liquidity position of the utilities. 6. We would also like to draw the kind attention of the Hon'ble Commission to the settled law that rights cannot be taken away by new legislation or amendment: This settled law is based on the *legal maxim nova constitution futuris forman imponere debet non prateritis* which means "a new law ought to regulate what is to follow, not the past". The Hon'ble in the backdrop of the principles laid down in tariff Regulations had allowed a capital cost for the project and thereby assured to have a return for useful life of the project basis the terms and condition laid down in Regulations. However, changing the set of rules in between to squeeze the return is impacting the bonafide rights/claim of the project developer and is against the settled law. Whatever law is made it should not hamper the legitimate return of the developer assured in the beginning. 7. In light of above submissions, it most respectfully submitted that Hon'ble Commission should retain the existing proviso under Clause (2) of Regulation 42 and 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.
9.	21. Amendment of Regulation 42 of the Principal Regulations	21.2. Clause (5) of Regulation 42 of the Principal Regulations along with the proviso of the said clause shall be substituted as under:-	The AUXen is for individual component of Emission Control System such as AUXe1 for FGD, AUXe2 for NOx etc. whereas, as per our understanding AUXe is the sum of all such AUXen. This clarity needs to be brought out in the definition of AUXe provided at Sl. No 2.1 of the

S.N.	Clause No./ Regulation	Amendment	Comments
		….. Where AUXen = Normative auxiliary energy consumption for pollution control system as a percentage of gross energy generation, wherever applicable. ….	draft amendment. Hence, in the above, the AUXen should be replaced by AUXe. Where AUXe = $\sum_{n=1}^{\infty} AUXen$, AUXen is Normative Auxiliary Energy Consumption for 'nth' component of the emission control system as a percentage of gross energy generation; The same has also been considered in 25. Amendments of Regulation 49 of the Principal Regulations *25.1. A new sub-clause, namely, sub-clause (bb) shall be inserted after sub-clause (b) of Clause (E) of Regulation 49 of the Principal Regulations as under:* *"(bb) Auxiliary Energy Consumption (AUXe) on account of emission control system of thermal generating stations: …*
10.	22. New Regulation 42A to be added in the Principal Regulations	22.1. A new regulation, namely, Regulation 42A shall be added after Regulation 42 of the Principal Regulations as under: "42A. Computation and Payment of Supplementary Capacity Charge for Coal or Lignite based Thermal Generating Stations: (1) The fixed cost of emission control system shall be computed on annual basis based on the norms specified under these regulations and recovered on monthly basis under	Since the Generating stations across the country would be implementing the emission control system in the next two/three years and the shutdowns would be in phases so as to ensure the Grid stability. This would have an impact on the respective station's peak and off-peak periods resulting into impact on cumulative availability for the station. Further, since commissioning and operation of emission control system in India is at nascent stage, unforeseen outages during stability period at least for a year is unavoidable and has been accepted in case when super thermal technology was first introduced in the country. With time and experience the same should stabilise. Accordingly, having

S.N.	Clause No./ Regulation	Amendment	Comments
		supplementary capacity charge. The total supplementary capacity charge payable for a generating station shall be shared by its beneficiaries as per their respective percentage share or allocation in the capacity of the generating station. The supplementary capacity charge shall be recovered under two segments of the year, i.e. High Demand Season (period of three months) and Low Demand Season (period of remaining nine months), and within each season in two parts viz., Supplementary Capacity Charge for Peak Hours of the month and Supplementary Capacity Charge for Off-Peak Hours of the month as follows:	strict availability regulations for peak and off peak hours is not desirable. Hon'ble Commission may further appreciate that commissioning of emission control system inevitably will happen in between the year and at different time of the year for different components for the different Units, thus, it would be difficult for a generating station to cover-up the losses during reduced number of days within one season and also to schedule during peak and off-peak. Hence, it is suggested that the implementation of peak and off-peak period availability may be mandated once the timelines of installations of ECSs are passed. It is likely that all the ECS will be implemented during this control period so it may be implemented in the next control period. It is suggested to have Supplementary Capacity Charges for ECS (SCC) to be defined as summation of Capacity charges for each emission control system installed at the generating station. SCC for ECS system = $\sum_{n=1}^{n} SCCn$, SCCn is Capacity Charges for 'nth' component of the emission control system to be installed for the station having one or multiple generating Units; Further, In order to simplify the procedure for determination of Supplementary Tariff and recovery of Tariff as an when ECS achieves COD, it is suggested to determine provisional tariff for each emission control system to be installed at the Generating Station for its multiple units based on provisional Capital Cost subject to final true-up after

S.N.	Clause No./ Regulation	Amendment	Comments
			commissioning of all ECS for the Generating Station. With provisional Tariff in place, Generating Station will have Supplementary Capacity Charges to be billed for each emission control system as an when it gets commissioned (on prorata basis) and Energy Charges billed as per notified Regulations. As and when an emission control system achieves COD, Generating Companies on prorate basis will bill the capacity charges for that ECS system. For illustration, if a generating station has two emission control system to be installed, namely FGD system and in combustion System. CC = Prevailing Capacity Charges for the Station SCC1 = Supplementary Capacity Charges approved by Hon'ble Commission for FGD system SCC2 = Supplementary Capacity Charges approved by Hon'ble Commission for in combustion system So, after commissioning of FGD system, generating station would start recovering capacity charges approved against FGD system on prorate basis in addition to it prevailing capacity charges for the station i.e. Capacity Charges Billed = CC + SCC1 (prorata basis) similarly, after commissioning of in combustion system, following capacity charges will be billed.

S.N.	Clause No./ Regulation	Amendment	Comments
			i.e. Capacity Charges Billed = CC + SCC1 (prorata basis) + SCC2 (prorata basis)
11.	23. Amendment of Regulation 43 [pdf Page No. 16]	23.4. A new sub-clause, namely, sub-clause (aa) shall be inserted after sub-clause(a) of clause (2) of Regulation 43 of the Principal Regulations as under: "(aa) Supplementary ECR for coal and lignite based thermal generating stations: Supplementary ECR = (Δ ECR) + (SRC x LPR / 1000) Where, (Δ ECR) =Difference between ECR with revised auxiliary consumption with emission control system equivalent to (AUXn + AUX en) and ECR with normative auxiliary consumption as specified in these regulations and revised;	It is suggested that proposed amendment including the formulae for computation of supplementary ECR may be suitably revised as under: (aa) Supplementary ECR for coal and lignite based thermal generating stations: Supplementary ECR = (Δ ECR) + (SRC x LPR / 1000)**/(1-(AUXn + AUXe))** Where, (Δ ECR) = Difference between ECR with revised station gross heat rate & auxiliary consumption after installation of emission control system and ECR with station heat rate & normative auxiliary consumption as specified in these regulations and revised; AUXn = Normative Auxiliary Energy Consumption in percentage as applicable without emission control equipment; AUXe = $\sum_{n=1}^{n} AUXen$, AUXen is Normative Auxiliary Energy Consumption in the Nth emission control system as a percentage of gross energy generation; [**Reasons:**] Formulae have been revised in line with the formulae given in the CERC Tariff Regulations 2019 and have to be there when ECR is computed on ex-power plant basis. Further, definition of AUXn is reiterated for clarity whereas AUXen has been replaced with AUXe as

			per definition provided in the draft amendment for Auxiliary Energy Consumption for emission control system. **[Reasons for Impact in Normative Station Heat Rate:]** Emission Control System will have impact on the Station Heat Rate of the generating unit(s). Hence, the normative SHRs of the generating unit(s) should also be adjusted appropriately. The 'in-combustion control system' which is one of the most suited method for abatement of NOx upto range of 450mg/Nm3 is sensitive to operational aspects and majorly impacts the boiler efficiency. Boiler efficiency will reduce due to increased unburnt carbon loss after implementation of 'In Combustion Control Technology'. Also, in case of SNCR system, because the water from the urea solution evaporates in the boiler, the boiler efficiency decreases. Consequently, more fuel needs to be burned to maintain the required steam flow. Reference document w.r.t. SNCR system may be downloaded from following links: https://www3.epa.gov/ttn/ecas/docs/SNCRCostManualchapter7thEdition2016.pdf The same has been highlighted by all the bidders for installation of In-Combustion control system for limiting NOx emissions. It is understood that the adverse impact on boiler efficiency would vary in the range of 0.8% to 1.8% depending on the site condition as per the discussions with vendors. Hence, in view of above, it is suggested that the Hon'ble Commission may provisionally consider the impact of 1.01% on Normative Station

			Heat Rate i.e. (SHR/(1-1%)) due to reduction boiler efficiency by 1% while finalizing the Regulations subject to true-up as per bid guarantee as it would severally impact the energy cost for reasons not attributable to Generating Stations.
12.	25. Amendment of Regulation 49 of the principle regulation:	25.1. A new sub-clause, namely, sub-clause (bb) shall be inserted after sub-clause (b) of Clause (E) of Regulation 49 of the Principal Regulations as under: "(bb) Auxiliary Energy Consumption (AUXe) on account of emission control system of thermal generating stations: (1) For reduction of emission of sulphur dioxide: … a) Wet Limestone based FGD system (without Gas to Gas heater) – 1.0% b) ….. c) Dry Sorbent Injection System (using Sodium bicarbonate) - NIL d) …… e) Sea Water based FGD system (without Gas to	Since Hon'ble CEA after examining the project specific facts and design has recommended certain operational parameters for some of the Generating Stations, it is suggested to revise the wordings of the proposed amendment "bb" as following: "(bb) Auxiliary Energy Consumption (AUXe) on account of emission control system of thermal generating stations should be as per project specific recommendations provided by CEA and in case no norms have been given by CEA following norms will be considered subject to true-up at actuals: (1) For reduction of emission of sulphur dioxide: … a) Wet Limestone based FGD system (without Gas to Gas heater) – 1.2%. [Reason:] CEA has approved 1.15% in case MPL and it may be higher based on actuals and for other projects based on plant specific requirements c) Dry Sorbent Injection System (using Sodium bicarbonate) - 0.5% [**Reason:**] It is understood that Auxiliary Energy Consumption for Dry Sorbent Injection System will be in the range of 0.5% to 0.6% as per

		Gas heater) – 0.7% (2) For reduction of emission of oxide of nitrogen : a) Selective Non-Catalytic Reduction system – NIL b) Selective Catalytic Reduction system – 0.2%	discussion with vendors and, hence, Auxiliary Energy Consumption of 0.5% is requested to be considered provisionally with true-up at actuals as suggested above. e) Sea Water based FGD system (without Gas to Gas heater) – 0.9% [**Reason:**] The Auxiliary Energy Consumption for Sea Water based FGD System is estimated to be higher and, therefore, it requested to provisionally set the norms of 1.2% (including Gas-Gas Heater) as set by Hon'ble MERC in its MYT Regulations 2019 for FGD system subject to true-up at actual. Hence, reducing 0.3% for Gas-Gas Heater, auxiliary energy consumption of 0.9% is proposed to be considered for sea water based FGD system (without Gas to Gas Heater) (2) For reduction of emission of oxide of nitrogen: a) Selective Non-Catalytic Reduction system – 0.05% [**Reason:**] It is estimated that based on the tentative electrical load list and considering nature of service of these loads i.e. continuous/ intermittent or emergency the likely consumption works to 0.06% of the Gross Generation. However, for SNCR system the same works out to 0.05%, and, hence, the same is proposed to be considered provisionally subject to true-up based on actuals. b) Selective Catalytic Reduction system – 0.3% [**Reason:**] As per the EPA document No. EPA/452/B-02-001 (Section- 4, NOx controls) as also referred by Hon'ble CEA while recommending norms mentions requirement of Auxiliary Power Consumption of 0.3% for Selective Catalytic Reduction system. Relevant portion extracted

			below: "*In all cases, SCR systems require additional electric power for the ID fan equivalent to approximately 0.3 percent of the plant's electric output*.." Hence, Auxiliary consumption of 0.3% may be considered provisionally subject to true-up based on actuals. Since Auxiliary Consumption degrades with decrease in PLF due to lower scheduling or in case of RSD, it is proposed that additional normative auxiliary consumption may be allowed for every 5% PLF range lower than 85% in the same proportion of normative auxiliary consumption proposed above as has been allowed in Order dated 06.04.2016 on account of every 5% reduction in PLF. [**Necessary provision for Impact on SHR needs to be inserted**] – 1.01% x Normative Station Heat Rate. As elaborated in comments at Sl. No 16, Emissions Controlled System will have impact on the Normative Station Heat rate of the generating unit(s). Hence, the normative SHRs of the generating unit(s) should also be adjusted appropriately. In particular, as stated above, in-combustion control system for NOx abatement will have substantial impact of about 1.01% of Heat Rate, Hence, a suitable provision need to be inserted under main Regulations to provisionally allow such impact subject to true-up based on guarantee given by Bidders.
13.	25. Amendment of Regulation 49 of the principle regulation:	25.2. A new clause, namely Clause (F) shall be added after Clause (E) of Regulation 49 of the Principal Regulations as under:	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

		"(F) Norms for consumption of reagent: (1)The normative consumption of specific reagent for various technologies for reduction of emission of sulphur dioxide shall be as below: (a) For Wet Limestone based Flue Gas De-sulphurisation (FGD) system: The specific limestone consumption (g/kWh) shall be worked out by following formula: [0.85 x K x SHR x S]/[CVPF x LP] Where, S = Sulphur content in percentage, LP = Limestone Purity in percentage, SHR= Gross station heat rate, 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; Provided that value of K shall be equivalent to	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. 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. 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 refence 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%. This is again a commonly sought factor by bidders for the purposes of guaranteed purity. It is also to be noted that while CEA has acknowledged that stoichiometric ratio increases with increase in efficiency of Sox or NOx

		(35.2 x Design SO2 Removal Efficiency/96%) for units to comply with SO2 emission norm of 100/200 mg/Nm3 or (26.8xDesign SO2 Removal Efficiency/73%) for units to comply with SO2 emission norm of 600 mg/Nm3; Provided further that the limestone purity shall not be less than 85%.	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. 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.
14.	Amendment to Regulation 49	(c) For Dry Sorbent Injection System (using sodium bicarbonate): The specific consumption of sodium bicarbonate shall be 12 gm per kWh at 100% purity.	a) Specific reagent consumption values given corresponds to approx. 60% SO2 removal efficiency, inlet SO2 loading of 1450 mg/Nm3 and meeting SO2 limit of 600 mg/Nm3. In case of higher removal efficiency say 70% SO2 removal efficiency & inlet SO2 loading of 1800 mg/Nm3, specific reagent consumption will be 21 g/KWH. Hence, it is suggested to indicate SBC consumption with SO2 removal efficiency and inlet SO2 loading. We have, therefore, proposed a generic formulation for DSI, wet limestone and dry/semi dry FGD as given in Annexure 2, which accommodates these parameters as variables for different site

			conditions.
15.	Amendment to Regulation 49 of the principle regulation:	(d) For CFBC Technology (furnace injection) based generating station: The specific limestone consumption for CFBC based generating station (furnace injection) at 85% purity limestone (kg/kWh) shall be computed with the following formula: [62.9 x S x SHR /CVPF] x [0.85/ LP] Where S= Sulphur content in percentage, LP = Limestone Purity in percentage, SHR= Gross station heat rate, 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;	In case of CFBC Boilers, Ca / S molar ratio depends on SO2 removal efficiency required & with increase in removal efficiency, Ca/S molar ratio increases. The SO2 removal efficiency required will depend on inlet SO2 level and outlet SO2 level to be achieved. The inlet SO2 level will depend on fuel being fired in CFBC Boilers. Hence it is suggested not to give general formula for specific reagent condition for CFBC Boilers. Even if, it need to be indicated, corresponding conditions like range of SO2 removal efficiency need to be indicated and design efficiency need to be factored similar to wet limestone based FGD. It is suggested to re-check the K value for CFBC Boiler, indicate range of efficiency for which K value is specified and factor design efficiency.
16.	25. Amendment of Regulation 49 of the principle regulation:	**New Clause:** **49. The norms of operation as given**	**New Clause:** **49. The norms of operation as given hereunder shall apply to thermal**

		hereunder shall apply to thermal generating stations:	**generating stations:** ….. (1)The normative consumption of specific reagent for various technologies for reduction of emission of sulphur dioxide shall be as below: … (f) Efficient Ammonia-Based Desulfurization Technology (EADS): The specific ammonia consumption (g/kWh) shall be worked out by following formula: = 0.5%*90%*SCC*100 Where, SCC= specific coal consumption at 85% generation and normative Station Heat Rate, kg/kwh • CERC has not considered Efficient Ammonia-Based Desulfurization Technology (EADS) as one of the efficient technologies available for emission control. • Request Hon'ble CERC to consider the same for inclusion in this amendment.

17.	Miscellaneous Comments	**<u>Other Aspects & Costs not covered in The regulations:</u>** **1) Treatment of Cost corresponding to By-product handling & Disposal** **2) Pre-operating Expenses** **3) Provisional tariff provision: Till the tariff is determined by the Commission** **4) Loss of Revenue due to Shut Down** **5) Permanent loss of revenue due to reduced Ex-Bus Capacity due to increased Aux** 6) **LTOA charges for reduced Ex-Bus capacity.**
18.	Miscellaneous Comments	The Tariff Regulations, 2019 define "Generating Station" and "Generating Unit or Unit". A number of equipment systems will be installed for meeting the revised emission standards. In my view, the definitions of "Auxiliary Power Consumption of emission control system" should be renamed as "Auxiliary Power Consumption of a emission control system" to highlight that there can be multiple systems being commissioned at a different point of time. Similar amendment may be proposed for "Date of Operation". The proposed amendments at various places in the draft, including in the definition of "Emission Control System", should clearly acknowledge its multiplicity and its commissioning at various points of time.
19.	Miscellaneous Comments	It is suggested that a common guideline/ policy on merit order scheduling be considered which can be followed by thermal plants across the country without having the possibility of being backed down on account of having higher ECR due to emission control system expense initially as long as most of the generators have implemented the same for their Generating Station. Further, such policy/provision in the Regulations will be in-line with the proposed recommendations regarding incentives to Thermal Power Plants for early installation of Pollution Control Equipment given by the Central Electricity Authority vide letter dated 26.09.2018 and Ministry of Power (MoP) direction dated 30.7.2019, issued u/s 107 of the Act to Hon'ble Commission to address similar concern. Key excerpts of the direction u/s 107 of the Act is reproduced below for ready reference: *"3. The Phasing of the implementation of the new environmental norms has been reviewed. Accordingly, it is directed that the impact of operating costs incurred in the implementation of new Environmental Norms shall not be considered for Merit Order Despatch of Coal Based Thermal Power Stations till 31.12.2022. For this purpose, CERC shall advise a methodology of supplementary tariff determination separately from normal tariff so* ***that installation of FGD/other ECS***

		***has no bearing on the merit order dispatch till 31.12.2022**."*