Comments on CERC Draft Order - Mechanism to decide Compensation for installation of Emission Control Equipment – 04/SM/2021

At the outset, it is respectfully submitted to the Hon'ble Commission that most of the proposals made in draft Order fundamentally violates the 'restitution' principle mandated in the PPA for change in law relief. The PPA is a statutory and binding document in terms of Section 63 of the Electricity Act and the restitution concept for Section 63 PPAs has been upheld by Hon'ble Supreme Court in Energy Watchdog case and Carrying cost judgments dated 11.04.2017 and 25.02.2019 respectively. It is therefore, necessary to align the relief for change in law to ensure restitution of affected party to same economic position as if no change in law has occurred. Restitution principle requires and demands consideration of actual cost unless the same is not resulting from inefficient operation of generating company. It is worth mentioning that the interest cost ought to be reimbursed at actual cost to the IPPs, otherwise benchmarking of it, would result in either under or over recovery, violating restitution principle. This principle was followed by APTEL in Wardha Power judgment dated 21.08.2013, and the same is followed by this Hon'ble Commission in granting relief for change in law for many IPPs. Hence, it is respectfully prayed to review the proposals made in draft Order including the provisions related to RoE and Interest on Loan. Detailed submissions for consideration are as follows:

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1.	**Depreciation (DEPe)** 31. The staff paper had suggested as under: **"***4.9. Based on the above, life of 25 years has been considered for ECS. Accordingly, 90% (considering salvage value of 10%) of additional capital expenditure on account of installation of ECS is proposed to be recovered by the generating company in 25 years as depreciation {straight line method @3.6% (90%/25) per year} starting from ODe of ECS."* 34. We are of the view that the **useful life of the generating station is to be considered 40 years in line with the Companies Act, 2013**. The Commission	• The Draft Order has standardized the useful life of the associated ECS as 25 Years for all the generating projects on the erroneous assumption that all the generating projects shall continue to operate efficiently for 25 years post installation of ECS, irrespective of completed years of operation of the power plant at the time of start of operation of the ECS. Most of the competitively bid plants are already operational for more than 5-10 years and their balance life is significantly less than 25 years. • Even if Companies Act, 2013 recognize 40 years of plant life, the Commission after due consideration still approved plant life as 25 years in its Regulations and therefore it follows that the ECS cannot operate without the main plant being useful for more than 25 years. • Moreover, there has not been a single instance so far, where old depreciated plants have taken part and won a medium/long-term contract under competitive bidding. The technology of older plants tends to become inefficient with advent of new technology

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	has considered the useful life of the generating station based on life cycle of major equipment of thermal generating station. **The life of emission control system has been considered as 25 years in line with the other major equipment of generating station**. The Commission observes that as on today, there are no generation projects with competitively bid tariff which have completed more than 15 years of life. Therefore, based on 40 years of life of generating stations, in all cases 25 years of life of emission control system would be available for recovery of depreciation. Thus, the proposed approach for recovery of depreciation in 25 years balances the interest of the generating companies and procurers. 35. Accordingly, in all cases irrespective of balance useful life of the generating plant, 90% of additional capital expenditure on account of installation of ECS (considering salvage value of 10%) shall be recovered by the generating company in 25 years as depreciation (straight line method @3.6% per year). The depreciation shall be computed from the date of putting the emission control system into use after meeting all applicable technical and environmental standards, certified through the Management Certificate duly signed by an authorised person. The value base for the purpose of depreciation shall be	and cannot match the new age modern plants when it comes to competitive bidding. It is also because of this reason that many of the cost-plus projects are being retired post completion of useful life of 25 years as it would not be viable to recover the capex required to meet the new environmental norms. • Further, as per extant Tariff Regulations, the cost-plus projects get Additional Capital Expenditure for Renovation & Modernization after their useful life. This is required as main plant equipment needs up-gradation due to obsolescence of spares. In addition, capital expenditure is also allowed for compliances of existing laws/force majeure/security considerations when such expenditure is considered reasonable and justifiable. However, for competitively bid projects, there are no provisions for any additional capex except for the provision of Change In law events in the contracts. Thus, it would be unreasonable to expect that the main plant and BoP will continue to operate beyond 25 years solely based on efficient O&M practices and especially considering the fact that there is huge surplus in the country and technological transformation by moving away from thermal towards RE & Storage. • Therefore, recovery of Depreciation of ECS CAPEX cannot be standardized across the board and has to be linked to and recovered over the balance useful life or balance extended life of the generating station or the balance long term PPA tenure, whichever is lower, in order to ensure that the Compensation on account of this “Change in Law” event adequately restores the affected generating company to the same economic position as if such “Change in Law” had not occurred, a principle enshrined under the PPAs upheld by both APTEL as well as the Supreme Court, failing which not only would the generators be exposed to under-recovery which is against the principle of restitution but financial closure of the ECS loans itself would get affected as the lenders are already significantly risk averse. It is worth mentioning even at cost of repetition that such restitution shall happen during the period of operation of PPA.

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	the additional capital expenditure of the emission control system as admitted by the Commission. **In case of gradual installation of emission control system for different emission standards or for multiple units, weighted average life shall be considered to work out depreciation.** The computation of depreciation during each year of the contract period shall be worked out by the parties directly based on admitted capital cost and the depreciation rate as follows: DEPe = (0.036) x ACEe	• Accordingly, in view of the above, the Hon'ble Commission should facilitate the recovery of the terminal value of the ECS from the beneficiaries if the PPA/concession period is not extended beyond the original tenure of the PPA or if the PPA is terminated prematurely. • The Order should also provide for a mechanism where the compensation is proportionally distributed among the respective procurers. • **Merit Order Despatch** - Besides, the additional cost on account of emission control mechanism shall be included in the MOD stack only when all the plants mandated to install the ECS have completed the same.
2.	**Cost of Additional Capital Expenditure (COCe)** 39. We have considered the suggestions of the stakeholders. The Commission notes that the approach of net fixed assets and cost of capital employed suggested in the staff paper satisfies the principle of economic restitution. The Commission is aware of the concerns and financial position of the generating companies. **However, any compensation for change in law cannot be a mechanism to improve their financial position**. Accordingly, **we hold that the suggested approach of servicing investment through cost of capital employed approach is appropriate, being consistent with the principle of economic restitution**.	**Rate of RoE** • ECS project is a standalone financial project which would not be completely funded by debt financing from Banks/ other Financial Institutions. It requires equity infusion by generating company. • Most of the IPPs are stressed financially due to various reasons not attributable to them. Their net worth is already eroded. Under these circumstances infusing equity expecting return at less than 15.5% would make the financial closure very difficult. • There is no rationale nor any incentive for the developers to infuse equity at the price of debt. If the developers are required to inject Equity, then they would expect risk adjusted returns which would be in excess to that being granted to debt, which in present Regulations is pegged at 15.5% for new projects. • As per CERC Tariff Regulations, 2019 (First Amendment) RoE is allowed on installation of FGD. However the same has not been considered for the generating stations whose tariff has been discovered and adopted under Section 63 of the Electricity Act, 2003. The same treatment should be given to all the generating stations irrespective of same being under Section 62 of 63 of the Electricity Act, 2003.

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	40. The servicing of capital employed during each year of the contract period shall be worked out **based on net fixed asset** (derived by adjusting cumulative depreciation of emission control system) and interest rate of fund. The **interest rate will be weighted average rate of interest on loans** of the generating station **including ECS** or at the rate of **Marginal Cost of Lending Rate of State Bank of India** (for one year tenor) as on 1st April of the year under consideration **plus 350 basis points**, **whichever is lower**. The generating companies shall workout the applicable interest rate for the cost of capital employed towards emission control system for the year under consideration. The cost of capital employed during the year shall be worked out as follows: COCe(n) = NFA(n) x WAROI(n) /100 Where NFA(n) = ACEe – [(n-1)X (DEPe)] **Where,** COCe is Servicing cost of Additional Capital Expenditure in Rupees per annum; NFA(n) is the net fixed asset of the of the year "n"; WAROI (n) is the weighted average rate of interest (in %) worked out based on weighted average rate of interest on loans of the generating station including ECS or at the rate of MCLR of SBI (for one year tenor)	• The PPA provides for "Restitutionary Principle" which says that in the event of Change in Law the affected party should be compensated such as to bring the affected party to the same economic position as if no change in law has occurred. This principle has been upheld by Supreme Court in Energy Watchdog (EWD) Judgment dated 11.04.2017 and UHBVNL Vs APL & others dated 25.02.2019 (carrying cost judgment). As submitted above, the expenditure cannot be entirely debt funded, the equity has to be infused. Therefore, if RoE on the investment is not allowed to affected party then it would not lead to complete restitution and the principle set-out in PPA and upheld by Hon'ble Supreme Court will get vitiated. Imposing such conditions after inducing IPPs to invest in power sector would amount to abuse of law and against the natural principles of justice. • **Without prejudice to the above, if the ROE is proposed to be restricted to the rate of interest of loans, the said rate of interest should be the higher of the actual weighted average rate of interest or the SBI PLR plus 350 basis points.** **Rate of interest for debt** • The draft Order proposes to restrict Weighted Average Rate Of Interest ("WAROI") on Debt/ Loan at SBI MCLR (for one year tenor) plus 350 basis points. This assumption fails to take into consideration the fact that Lenders charge different interest rates to different projects/companies depending on many factors including their previous exposure/financial health of the power procurers/credit rating/liquidity position etc and there are a sizeable number of existing generating projects where the actual WAROI is substantially higher than SBI MCLR (for one year tenor) plus 350 basis points owing to their credit rating / financial metrics. It may be noted here that credit rating for many of the competitively bid projects have been influenced by the negative view that rating agencies have on the counter-parties (distribution utilities) as well as the overall negative outlook for coal-fired power plants emerging from number of bankruptcy cases.

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	as on 1st April of the year plus 350 basis points, whichever is lower; "n" represents the year starting from the date of operation of emission control system.	• In the absence of any caps being applied by the Banks/Financial Institutions on the interest rate, it would not be appropriate to Cap the rate of interest to one year MCLR+350 basis points as this will create an inbuilt mechanism for under-recovery of financing costs, a scenario wherein lenders will not want to sanction any loan. • Accordingly, it is requested that WAROI on the Debt component be allowed on actual basis without any capping/ linkage to any benchmark. Therefore, Rate of interest for debt should be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company as a whole should be considered. **GFA basis vs NFA basis** • Capital base has to be worked out based on Gross Fixed Assets (GFA), to provide a level playing field for generating stations under Sections 62 & 63 of the Act for compliance of installation of Emission Control System as Additional Capitalisation for Section 62 projects towards ECS is allowed on GFA basis in terms of the CERC (terms & Conditions of Tariff) (First Amendment) Regulations 2020. • Adoption of NFA approach for competitively bid projects will put such projects in a different platform than the cost-plus projects for whom this Hon'ble Commission has allowed cost of equity @ weighted average cost of debt subject to ceiling of 14% per annum vide CERC (terms & Conditions of Tariff) (First Amendment) Regulations 2020. • Under the NFA approach for competitively bid projects, while the Debt: Equity ratio has not been specified, only the allowable cost of capital employed has been capped at @ SBI MCLR +350 basis points. Pertinently, the credit ratings of various developers are not high enough to secure long-term loan from banks/financial institutions at such low rate. • In case of further decrease in the SBI MCLR till the year of commissioning, the developers may find additional cost to be borne by them to fund the interest repayment.

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		• In our humble opinion, therefore, NFA approach will be unfair on the developers of competitively bid projects as this will deny not only reasonable returns to such developer as well as they may not be able to generate adequate cash flow for meeting its debt service obligation. • **Initial spares** as a percentage of project cost shall be allowed. This cost of initial spares shall be part of the total capital expenditure / total project cost.
3.	**Additional Operation &Maintenance Expenses (O&Me)** 44. Accordingly, we propose that the additional revenue expenses for operation and maintenance (O&Me) for the first two years of operation (including part financial year), shall be based on 2% of the additional capital expenditure (ACEe) for installation of ECS (excluding IDC and FERV) as admitted by the Commission, to be escalated at the rate of 3.5% per annum for the second year. The O&M expenses from the third year onward shall be as per norms and escalation rate determined separately by the Commission. The additional O&M expenses (O&Me) shall be worked out as follows: **First Year: 2% of ACEe excluding IDC and FERV** **Second Year: 2% of ACEe escalated at the rate of 3.5%.** **Third Year onward: As per norms to be specified by the Commission.**	• While we agree with the proposal of O&M expense at 2%, it is requested to allow reimbursement cost of reagents separately which depends on actual operation.
4.	**Additional Interest on Working Capital (IWCe)**	• Currently, there is uncertainty about the availability, quality and location (international / domestic) of limestone. The lead time for reagents sourced internationally will be

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	47. The Working Capital (WCe) shall include following components: (i) **Cost of lime stone or reagent for stock of 20 days** corresponding to the normative annual plant availability factor; (ii) **Advance payment for 30 days towards cost of lime stone or reagent** for generation corresponding to the normative annual plant availability factor; (iii) **Operation and maintenance** expenses in respect of emission control system for **one month**; (iv) **Maintenance spares @20% of** operation and maintenance expenses in respect of emission control system; and (v) **Receivables** equivalent to **45 days** of supplementary capacity charge and supplementary energy charge for sale of electricity calculated on the normative annual plant availability factor. 48. ……. WCIR(n) is Working Capital Interest rate (in %) which is **Marginal Cost of Lending Rate** of State Bank of India (for one year tenor) **plus 350 basis points** as on **1st April of the year** for which compensation is to be determined.	substantially higher. Further, there are also constraints in transportation/ logistics since the limestone is essentially transported by road within the country. Therefore, for all plants in general and remotely located plants in particular, in order to meet the availability commitments, the generator will have to keep stock of limestone/reagent to last at least for a month considering the higher lead time of transportation and to protect against supply disruptions, quality issues etc. Therefore, **30 days stock of limestone/reagent should be considered**.
5.	**Shutdown Period** 75. We have examined the suggestions. As regards the normative availability factors in annual shutdown period, the parties to the PPAs shall coordinate and plan the interconnection of emission control system	• The time and duration of annual shutdown / overhaul is governed by various factors such as demand-supply scenario, grid security etc. and is regulated by the LDCs. The overhauling plan in case of multiple units is staggered basis the OEM recommendations, maintenance requirements and as per the agreed overhaul plan with Load Dispatchers. Therefore, while the developers may endeavor to carry out the

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	with main plant by synchronizing it with the annual overhaul. The Commission is of the view that if the period of shut down exceeds beyond annual shutdown period factored in the normative availability under PPA, either on account of delay in timely completion of activities for interconnecting emission control system or lack of coordination, the **consequential cost for the same cannot not be passed on to the consumers**.	interconnection of the ECS for one Unit during the annual shutdown / overhaul, the balance Units should be deemed available during the period of ECS installation subject to prudence check on the feasibility of synchronization with annual shutdown by the Hon'ble Commission.
		• Accordingly, it is suggested that the plant/unit should be considered as "Deemed Available" during the extent of actual number of days of shutdown (subject to prudence check by the Hon'ble Commission), during which the plant/unit would be compensated for the following:
		  • Complete defrayment of Fixed Capacity Charges
		  • Recovery of LTOA Charges
		  • Waiver/reimbursement of penalty under PPA, if any, for lower availability
		  • Waiver/reimbursement of any additional charges for short / non- lifting of coal under the FSA with coal companies.
		This will be in consonance with the Principle of Restitution upheld by the Hon'ble Supreme Court.

6.	**Timelines for tariff determination**	• It is submitted that the Hon'ble Commission should declare the Provisional Tariff for ECS prior to the Commercial Operation Date which the developers can start to recover immediately upon COD and subject to actual / final trued up tariff in order for them to be able to service the debt and so also prevent Late Payment Surcharge / Carrying Cost burden on the Beneficiaries / Discoms and end consumers.
7.	**Capex for environment protection equipment in cases of Augmentation**	• Existing tariff principles do not allow recovery of capacity charge basis the entire capex spent in cases of augmentation. For example, on installation of higher capacity ECS to comply with MoEF & CC notification, its Capex will not be allowed in full and it will be reduced by decapitalizing the approved Capex of existing ECS. This is unfair to the developer because the requirement is pursuant to change in law and the replacement of the ECS system is happening much before completion of useful life. Accordingly, the Hon'ble Commission needs to address this anomaly in a pragmatic way to ensure that

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		the developers are not penalized unnecessarily. It is necessary for the Hon'ble Commission to ensure that the relief granted pursuant to change in law follows the restitution principle in its true spirit.