CUTS Comments and Suggestions on CERC's Draft Order on "Mechanism for Compensation on account of change in law for compliance with Revised Emission Standards notified by MoEF&CC in respect of competitively bid thermal generating stations"

Background

Ministry of Environment, Forest and Climate Change (MOEFCC) has notified Environment Protection amended Rules 2015 specifying revised emission standards and water consumption limits for coal and lignite based thermal power plants (TPPs). In order to meet the revised standards, TPPs have to upgrade or install their Emission Control Systems (ECS) that comprises of FGD (Flue Gas Desulphurization) system, Electrostatic Precipitators (ESPs), Selective Catalytic reduction System (SCR), Selective Non Catalytic Reduction System (SCNR) and Cooling Tower (CT) etc. These additional systems in the thermal plants would help achieve the target of NOx, SOx and specific water consumption limit to be within a specific range, as specified by MOEFCC.

Installing such system entails cost in terms of capital expenditure and operational expenditure. The TPP operators have already entered into PPAs with distribution companies for majority part of their power procurement that do not have any provisions of such standards before the MOEFCC Environment (Protection) amended rules in December 2015 that again amended in October 19 2020 and April 01, 2021.

While cost plus TPPs has separate provision for addressing the additional cost impact due to any change in law, there are no specific rules for projects under section 63 that are competitively bid. In this case, any additional cost arising out of change of law event needs to be approved from the regulator. It is only after the approval that it will be eligible for passing on to the consumer through appropriate tariff revision. Distribution companies resist any additional increment of cost of tariff as it directly affects their revenues. In addition, these investments require major funding from the banks and financial institutions that insist on regulatory approval for sanctioning any additional loans to the plant operators.

In these circumstances, TPPs seek approval of capital cost on ex-ante basis their technology deployed and operational expense of installing such systems and files petitions to respective regulators for urgent hearing of the same. Hence, the role of

regulators becomes very crucial to identify various elements and formulate compensation mechanism that is amenable to all along with safeguarding consumer interest.

In order to normalize the change in law and to address such petitions in future, CERC earlier came out with a staff paper consultation on compensation mechanism for installation of ECS and asked for comments and suggestions. After incorporation of the comments, it has taken a suo-motu cognizance of the issue and prepared a final draft of the same asking for suggestions before notifying it. This is a welcome step from the regulator to pre-empt the petitions that may come from several thermal power plants raising a myriad of issues. Also, this move would signal a much needed clarity on the subject and provides regulatory certainty to the sector.

CUTS is pleased to share its comments and suggestions on the draft on some selective issues that it believes are necessary for a fair tariff compensation mechanism for all stakeholders and most importantly to the consumers.

The suggestions are listed below:

Sl No	Issues and References to the draft order	CERC explanation	CUTS Comments and Rationale of the comments
1	Page 15, point no 19	On the issue of determining the compensation, there is argument that regulator should not go into details of individual tariff component as the project is under competitive bidding tariff. However, regulator observes that there is provision in standard bidding document under case 1 bidding, compensation should be worked out on the basis of increase in cost or decrease in revenue for the TPPs	CUTS completely agree to this view. Any compensation formula that has a direct correlation to the tariff and hence, influence the consumer should have a fair and transparent logic to the argument. In this case also, compensation should be linked to any additional cost that can be attributed to loss of revenue or increase in cost to the TPPs.
2	Page 16, point no 21,21 and 22	CERC acknowledges additional capital expenditure due to installation of the systems, recurring O&M expense and interest on working capital for the same. In addition, it acknowledges that there will	CUTS is also of the view that while the notification would provide an overall compensation mechanism for all section 63 projects, the compensation mechanism can be customized depending on project to project basis and certain characteristics

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		be decrease in revenue on account of higher auxiliary consumption by these units installed which will decrease the units available for sale. Point no 22 highlights that case 1 and case 2 projects are different because of certain features and needs to be evaluated on case-to-case basis, consistent with provision of respective PPAs.	that are unique to projects itself.
3	Page 17 , point no 23	Regulatory commission believes that the hard cost of the ECS can be best determined by the competitive bidding method.	CUTS is also of the view that competitive bidding is the most recognized and adopted way of determining the actual cost of any machines, equipment and systems. However, there is always a chance of cartelization but this is most scientific way of determining the cost as is happening to natural resources.
4	Page no 18,19 point number 26-28	It describes the multi part tariff structure according to model PPAs, consisting of capacity charges and energy charges and consolidated single part tariff structure of medium term PPAs. The structure of compensation for supplementary capacity charges and supplementary energy charges described. This consists of all the charges that would be included while determining the tariff.	The multi part tariff structure is beneficial to distinguish the components and brings in the required clarity in understanding the cost components. The only anomaly is with the single part tariff for medium term PPAs. For this too, CUTS is of the view that while calculating the supplementary charges, it should be calculated based on 2-part structure for both the single part and multi part tariff model.
5	Page 20, Point no 31 (depreciation)	The paper clearly identifies the major cause of disagreement while determining the depreciation cost in which the time of life of TPP is most important.	CUTS would differ with CERC points of view here. Though we understand that the 25 years of life period for depreciation would be helpful for consumers, it would be a severe blow to TPPs.

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		The general consideration of TPP's useful life is 25 years. Hence, logically it should follow a 25-year time while calculating the charges. But, the points of arguments like remaining useful life of the plants could not be sidelined. CERC observes that all plants under section 63 are under 15 years of operation and thus, with a 40-year timeline for the equipment, 25 years of plant life for depreciation calculation would be logical.	As current situation demands and with the net zero emission targets pressure from the international community and pressure from the financial institutions, it is going to be very difficult for the TPPs to survive for a period of another 25 years. Also, there is constant pressure from the discoms to revoke the PPAs as they consider the tariffs to be much higher than renewables and want to explore the short term power market in a big way, it would be very difficult for the TPPs to survive in these cases. With all these consequences, CUTS suggest that the depreciation timeline should be in line with the useful life of the plant on a pro rata basis. However, for computation purpose and taking consumer interest in consideration, the useful life of the plant can be increased to a maximum of 30 years. It may be taken as a benchmark for calculation. In any case, it should not be more than that of 30 years. CUTS suggest that a study can be undertaken by CERC to find out the life of a thermal power plant considering the technical and operational parameters along with evolving economic conditions for a time period upto 2040.
6	Page no 23, point number 38 and 39	Treatment of servicing cost of capital employed. CERC suggests that the approach of net fixed asset and cost of capital employed to be the basis of servicing the investment through cost of	CUTS believe that this is a fair principle as any modification of these terms to benefit the generators would not be prudent. In addition, this component should not be used as a means to address the financial distress of

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		capital	the generating companies.
7	Page no 25, point number 41	On additional expenses in O&M. CERC suggests to provide a 2% additional capex as O&M expense for first year and then escalated at a rate of 3.5% for the 2nd year and 3rd year onwards, as per norms specified by commission.	CUTS is of the view that this would require many data points and a control period of 3 years would suffice to establish the norms on O&M. For the initial 3 years, O&M specifications as allowed for rest of the plants machinery and works can be followed in such case.
8	Page no 26, point no 45	This is on the issue of working capital requirement. CERC states that for any consideration, annual plant availability is to be considered for reagent requirement, receivables and advance payment.	This is a positive development to consider the plant availability or declared plant availability rather than plant load factor.
9	Page 29, point no 51	CERC highlights about the auxiliary consumption by ECS. The assumption of CEA on providing 1% for the auxiliary consumption is not correct, as it does not take into account the size of the plant and other efficiency measures. CERC proposes that it would be prudent for both the parties if auxiliary consumption were adjusted from the surplus capacity of thermal power plants. CERC wants this to be based on normative auxiliary consumption prescribed by the tariff regulations by the regulator.	CUTS is of the view that providing 1% for auxiliary consumption as per CEA norms is a bad idea. This has to be changed based on the scientific calculation. With several data points and operational parameters, auxiliary consumption can be calculated and benchmarked according to the size of the plant and technology deployed. Hence, CUTS is in the favour of a study that would establish benchmarks in auxiliary consumption in thermal power plants. For ECS, to start with, regulator can go for existing formula for auxiliary consumption subjected to actual consumption based on data gathered in 2 to 3 years. For projects under section 63, this is not a component of tariff but gencos generally count this in their contracted capacity. Any

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			change in auxiliary consumption would affect the overall revenue, so it requires a proper consideration while compensating the TPPs.
10	Page 32, point no 58	CERC suggests recovering the cost of reagent in the same manner as that of cost of fuel and the treatment of the same in likely manner. It should be treated differently and should not be a part of O&M.	CUTS would agree to the CERC suggestion of treating it differently as that of fuel. This is a welcome step from the regulator, as reagent would vary depending on the technology chosen for the ECS. In addition, it will commensurate with the actual generation. Specific consumption of reagent, its purity can not be determined without studying of the actual consumption with respect to generation. So, it is prudent to devise an escalation index based on various factors after studying the data points for a specific period of time.
11	Page 36, point no 65	On various suggestions received on regarding recovery of compensation by CERC. Supplementary annual capacity charges should consider actual generation and not the scheduled generation. Compensation should be allowed basis on actual revised emission norms met and not by installation only.	These are valid suggestions. From various instances, it is found that there is a scope of manipulation when the generators are allowed tariff pass through or compensation based on scheduled capacity or declared capacity. CUTS is in favor of third party monitoring of the ECS system use and its result on the revised emission norms and reporting on a monthly basis. All gencos should publish this report on their website so that it is open for verification. This would help establish the transparency in the system.
12	Page 38, point no 70	The commission suggests that supplementary capacity charge should be recovered by the gencos on monthly	This is a positive step as it disallows the gencos to operate the power plant without operating the ECS. The

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		basis depending upon the cumulative availability achieved until the end of that month. No capacity charge will be allowed if the genco declare the availability beyond the normative availability of the plant. In addition, it clarifies that if the contract period PPA is less than the useful life of the emission control system, the obligation of the procurer is only limited to contract period and contracted capacity.	supplementary capacity charges payable linked to the availability achieved by the ECS would ensure that the compensation is only available for operation of ECS and not just the installation of the same. This would help achieve the objective of the environment emission law.
13	Page 41, point no 75	For compensation for shutdown while installing the ECS and its stabilization, the commission proposes that the installation of such a system should be in synchronization with the annual shut down for maintenance of the plant. If the installation process of the ECS system goes beyond the annual shutdown period, the additional cost will not be passed to the consumers.	This is a positive step from the viewpoint of the consumer and well timed by the regulator. However, there is no standard time of installation of such a system that can be compared with the downtime for maintenance of specific units. Hence, the provision seems to be little harsh on the generators. As the installation would depend on many factors and on the size of the unit, the commission in association with CEA should find and benchmark the standard time for installation based on a comparative study on the same with other plants outside India, customized to Indian conditions. Based on the same, the shutdown time can be computed and should be decided on case-to-case basis by the regulator.

Other factors that require commission's attention:

While the above factors pertain to the issue of compensation to the generation company because of installation and operation of ECS, several other factors require urgent attention of the commission. This environment norms and its implementation was lingering for many years and there are several petitions challenging this order in the court. Similar pendency is there with the regulatory commissions as there are many petitions from the generating companies in several SERCs. The resolution of the same takes a considerable time and adds to uncertainty. Hence, CERC should come forward with a specific time limit to address these petitions, say around 3 to 4 months for resolution of such petitions.

As these are new systems, its establishments and stabilization in the Indian context will take considerable time. In the absence of correct data and information, all the calculations and formulas would only be rhetoric and can best be established as a starting point. To make it more robust, regulators should emphasize on regular monitoring and sharing of all the data and information from the gencos regularly. A system should be put in place so as to receive all information regularly on a monthly basis and it should initiate a study based on these data to review the operation, performance and actual emission standards met from these systems. This would help stabilize these formulas and create a win-win position for all the stakeholders.

Last but not the least, the commission should take note of the recent changes in the sector nationally and internationally in terms of thrust on climate change aspects globally, net zero challenges, coal sector movements and bigger financial constrains arising out of changing global scenario while deciding on such a factor that has long term consequences.

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