

Comments on Staff Paper on Mechanism for Compensation for Competitively Bid Thermal Generating Stations for Change in Law on account of Compliance of the Revised Emission Standards of the Ministry of Environment, Forest and Climate Change, Government of India (MoEF&CC)

Submitted by - Reliance Power Limited

Staff Paper circulated by the Hon'ble Commission could have taken two approaches:

a. Ensure that operating and financing norms to be used for compensation towards implementation of ECS are workable; acceptable from the point of view of technology providers and bankable from the point of view of providers of debt and equity capital. This would have ensured that financing bottlenecks in the economy and the power sector, which have turned further negative in the COVID-19 period, are overcome and ECS implementation becomes a reality. Once the first tariff control period gets over i.e. post FY 2023-24, the actual on-ground performance vis-à-vis initially prescribed norms could be studied to bring about suitable modification in the norms (especially operating norms) for the next control period starting April 2024.

OR

b. Ensure that tighter norms – whether operating or financial norms - are prescribed to begin with and consultation with industry participants / banks / financial institutions will lead to arriving at more workable norms before the same are rolled out.

Staff of the Hon'ble Commission seems to have adopted the approach (b), which in all probability will create genuine financing hurdles and may elongate the timeline for arranging capital (debt and equity) for implementing ECS. With this backdrop, we provide our comments on various provisions of the CERC Staff Paper.

Sr. No.	Particulars	CERC staff paper-Sec 63 projects	Reliance's Comments / Suggestions
1	Depreciation (ACE_{Dep}) and Useful Life	4.9- 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	1.A mechanism for Competitively Bid Thermal Generating Stations towards compliance of the Revised Emission Standards needs to deal with primarily two aspects of tariff compensation viz. (a) Operational costs recovery; (b) Capital Cost recovery. 2.Accordingly, each of the suggestions in the Staff Paper needs to be tested on bankability i.e. whether the proposed tariff parameter is capable of creating a viable business case for the IPP developer and its lenders. It is therefore essential that all public sector and private sector banks /

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		ECS.	<p>financial institutions and sector-focused lending institutions such as PFC / REC need to test the tariff suggestions on the aspect of bankability. Otherwise the very purpose of creating such a consultation paper would stand defeated.</p> <p>3. It is only in the past when RBI allowed flexible structuring of infrastructure loans, when banks showed willingness to consider nearly 85% of PPA period as a final maturity period for long-term loans. This feature is not necessarily a common feature of all long-term IPP financing and is not to be misconstrued as banks being very enthusiastic to extend loans with maturity of 25 years. Left to the banks, they will be most happy if no further debt funding exposure is required to be taken on a given IPP considering pre-existing challenges of stretched debt service coverage levels, absence of DSRA, cost under-recoveries, etc.</p> <p>4. In its most stretched long-term loan scenario, lenders have, in some cases under the above-mentioned 5/25 flexible structuring of loans, have provided debt financing upto 21 years, leaving a four year tail period, for a power project with 25 year PPA having provision for PPA extension on mutual basis.</p> <p>5. Hence a loan for FGD can at best cover a period that leaves a tail of 2 to 4 year for PPA term to get over. In the post COVID-19 scenario, lenders' outlook towards IPP funding has not improved, but it has further nosedived.</p> <p>6. Further, with renewable tariffs coming down significantly, there is a lack of debt funding for coal-fired plants even in domestic financing markets / banks.</p> <p>7. Lenders, including PSU Banks, are looking to reduce their exposure to power sector, especially coal-based power generation sector.</p> <p>8. There is hardly any international equity or debt available for coal-fired power sector investments.</p> <p>9. The fund required for FGD in most competitively bid projects cannot be met out of the available cash flows (it is a well-recorded fact that competitively bid projects have tariffs which are significantly lower than</p>

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			<p>the section 62 projects and many have already faced debt defaults and haircut by lenders) and the projects have to look at the markets to provide for both sources of funding to finance equity investments and debt funding for implementing ECS.</p> <p>10. Under such circumstances, when there is an uncertainty on long-term continuity of coal-fired plants, unavailability of debt and equity funding for implementing ECS, we would request the Hon'ble Commission to create an enabling environment for attracting funding rather than developing regulations which will make it difficult to implement the environment technologies to meet the new Environmental norms.</p> <p>11. Hence we would request the Hon'ble Commission to compute depreciation considering a debt repayment over balance PPA term while leaving a 2 to 4 year tail period..</p> <p>12. Further, each of the projects has its own challenges with respect to operating beyond 25 years, such as availability of coal, water, efficiency of technology, etc. In fact, there is an emerging trend where plants have been retired before 25 years life on account of technology and performance issues to allow other efficient plants to operate. There is a situation of excess supply / lack of demand, especially for coal-based power.</p> <p>13. Hence it is proposed that the 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 as depreciation over the balance PPA period ensuring that the amount required for debt repayment (70% of ECS cost) to be recovered leaving a tail period of 4 years.</p>
2	Cost of Capital Employed (ACEcoc)	4.11- additional capital expenditure on installation of emission control system is proposed to be serviced on Net Fixed Assets (NFA) basis (value of fixed assets reducing each year by the depreciation value) @ weighted average rate of interest	<p>It is very clear that the manner in which the CAPEX for ECS is going to be funded has not been considered while making suggestions regarding cost of capital employed.</p> <p>Are financing markets – banks / institutions / equity providers going to fund the ECS capex on overall capital employed basis?</p>

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		<p>of loans raised by the generator or at the rate of 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 in which emission control system is put into operation, whichever is lower.</p>	<p>This is especially true when the sources of debt funding and equity funding are both scarce & distinct, have distinct risk appetite and have distinct return expectations.</p> <p>When financial markets are stable and end-use sectors send signals of regulatory certainty, only then securing funding on an overall capital employed basis with equity not commanding any significant premium over debt cost can be envisaged.</p> <p>This has been hugely researched subject and Hon'ble Commission has examined it on numerous occasions in the past.</p> <p>Time to revisit this will be when main tariff regulations are being reviewed by the Hon'ble Commission for control period starting April 2024 and not as an opportunity for considering a different financing approach for funding ECS capex.</p> <p>Current financing scenario in the country, especially against the backdrop of COVID-19 and power sector outlook are nowhere near such an idealistic thinking and it is disheartening to note that this perspective is grossly missing in the current set of proposals.</p> <p>The additional capital expenditure of emission control system may be serviced generally on the basis of debt to equity ratio of 70:30 i.e. max. equity of 30% can be considered for funding ECS Capex.</p> <p>If an IPP in question is able to arrange higher debt funding for ECS Capex, such higher level of debt funding can be considered (higher than 70%).</p> <p>Rate of interest for debt</p> <p>1. The rate of Interest charged by the lenders depends on various factors which inter alia include, credit rating of the company, liquidity position of</p>

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			<p>the company, existing financials of the generating project for which ECS is to be installed, promoter profile, etc.</p> <p>2. 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.</p> <p>3. Hence it would not be appropriate to Cap the rate of interest to one year MCLR+350 basis points. Banks / FIs need to be asked whether they are putting such cap on interest rates, if not, we are creating an in-built compensation (tariff) mechanism for under-recovery of financing costs, a scenario wherein lenders will not want to sanction any loan.</p> <p>4. Hence it is proposed that the rate of interest on loan for installation of emission control system to 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 shall be considered.</p> <p>Return of Equity</p> <p>5. Moreover, unlike routine additional capex, FGD implementation involves significant capex and would require promoters / equity holders to inject additional equity capital. It will be impossible to attract this additional capital unless broad sector rate of return is provided.</p> <p>6. Even where, equity is funded by internal accruals, the proposed provision would mean that the return to the existing equity investors will be less than the cost of such equity capital.</p> <p>7. As such, coal-fired power sector is not able to attract international investors for environmental reasons, if it becomes unattractive for even domestic investors, then power companies will find it very difficult to raise the equity required for FGD implementation and thereby delaying the ECS implementation.</p> <p>8. Above all, regulatory certainty is of utmost importance for stakeholders</p>

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			<p>and the cost recovery structure proposed in staff paper will also mean that it will be impossible to finance with 70:30 debt equity ratio as proposed equity return will not enable requisite DSCRs required for achieving financial closure for ECS Projects on a standalone basis.</p> <p>9. As such, power sector is already facing severe stress. Under the current circumstances arrangement of equity for meeting new environmental norms itself is a challenge.</p> <p>10. Hence regarding RoE it is proposed as under</p> <p>The Base return on equity in respect of additional capitalization on account of emission control system shall be at a specified premium of 3% p.a. over the applicable debt funding costs. This will also enable raising quasi equity / subordinated debt kind of funding to finance equity component of ECS Capex.</p> <p>The Base rate of return on equity shall be grossed up with the effective tax rate of the respective financial year and shall be computed as per the formula given below:</p> <p>Rate of pre-tax return on equity = Base rate / (1-t)</p>
3	Additional O&M Expenses (ARE_{O&M})	4.13- On similar lines, it is proposed that additional O&M expenses (ARE _{O&M}) for first year may be allowed @2% of additional capital expenditure (ACEECS) for installation of ECS (excluding IDC and FERV), admitted by the Commission after prudence check. For subsequent years, the first year O&M expenses (ARE _{O&M}) may be esclated @3.5% or any other escalation rate as may be specified by the Commission. The above O&M expenses	<ol style="list-style-type: none"> 1. FGD would require very high maintenance due to use of highly abrasive raw material like limestone and generation of gypsum as a byproduct. 2. Hence the proposed O&M expenses at 2% of additional capital expenditure for ECS would not be adequate to cover the actual O&M expenses. 3. Moreover since we do not have experience about O&M cost requirement of the ECS, it would be prudent if we allow the actual O&M cost incurred by the generators for the first year of operation of ECS and subsequently notify the norms based on the experience gained. 4. It is admitted fact by the Regulators also that linking O&M cost norm to Capital Cost is not the effective method and same may be notified on

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		may subsequently be reviewed based on actual O&M expenses of ECS installed at various generating stations.	per MW basis after gaining experience on actual O&M cost requirement. 5. Hence it is proposed that the O&M expenses for ECS system may be allowed at actual for first year of operation of ECS and subsequently notify the norms on per MW basis as per the data collected on actual O&M cost incurred during first year of operation of ECS. Moreover year on year escalation in normative O&M cost may be determined linking it to WPI and CPI.
4	Additional Interest on Working Capital (ARE_{IWC})	4.14- (i) Cost of limestone or reagent towards stock for 20 days corresponding to the normative annual plant availability factor and advance payment for 30 days towards cost of reagent for generation corresponding to the normative annual plant availability factor; (ii) Operation and maintenance expenses in respect of emission control system for one month and maintenance spares @20% of operation and maintenance expenses in respect of emission control system; and (iii) 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.	In respect of calculation of Additional Interest on working capital (Additional IWC) following may be considered 1. The cost of limestone for the first financial year after Date of Operation (ODe) of ECS shall be considered based on landed limestone cost and limestone purity as per actual weighted average for three months, as used for commissioning of ECs, preceding ODe. 2. For the Second financial year onwards after ODe, the cost of limestone for emission control system shall be based on the landed limestone cost by the generating station and the purity of the limestone as per actual weighted average for the third quarter of preceding financial year in case of the financial year for which Additional IWC is to be determined: 3. While computing Receivables at 45-days of supplementary capacity charge and supplementary energy charge, receivables for supplementary energy charge shall be based on charge calculated on normative plant availability factor or actual PLF whichever is higher. 4. Rate of interest on working capital shall be actual average working capital interest rate paid by the generator for the preceding financial year or the bank rate (one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points) as on 1st April of the year, whichever is higher. 5. Additional IWC shall be payable on normative basis notwithstanding that the generating company has not taken loan for working capital of ECS from any outside agency.

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5	Supplementary Annual Capacity Charges (SACC)	<p>4.15- The four components, namely, ACE_{Dep}, ACE_{COC}, $ARE_{O\&M}$ and ARE_{IWC} shall be calculated in Rs. lakh on annual basis for the useful life of ECS i.e. 25 years starting from ODe of the ECS. The sum of these is termed as Supplementary Annual Capacity Charges (SACC). The recovery of Supplementary Annual Capacity Charges by way of monthly billing shall be in line with the recovery and payment of quoted capacity charges for generating stations in accordance with the PPA.</p>	<p>Useful life of ECS is to be considered as balance life of PPA leaving a tail period of 2 to 4 years.</p> <p>Recovery of four components needs to be calculated in Rs Lakhs on annual basis for the useful life as mentioned above.</p>						
6	Additional Operational Expenses due to Consumption of Reagent (AOE_{COR})	<p>4.16- The cost of reagent per unit of electricity generated at generator terminal of the generating station shall be calculated based on the specific reagent consumption (grams/kWh) and landed price of the reagent at the generating station.</p>							
7	Additional Auxiliary Energy Consumption (AUX_{ECS}):	<p>(In line with CEA Recommendation)</p> <p>1. Additional Auxiliary Energy Consumption (ΔAUX):</p> <table border="1" data-bbox="517 1182 1019 1398"> <thead> <tr> <th data-bbox="517 1182 840 1273">Name of Technology</th> <th data-bbox="840 1182 1019 1273">ΔAUX (as % of gross generation)</th> </tr> </thead> <tbody> <tr> <td colspan="2" data-bbox="517 1273 1019 1337">(1) For reduction of emission of Sulphur Dioxide:</td> </tr> <tr> <td data-bbox="517 1337 840 1398">a) Wet Limestone based FGD system (without</td> <td data-bbox="840 1337 1019 1398">1.0%</td> </tr> </tbody> </table>	Name of Technology	ΔAUX (as % of gross generation)	(1) For reduction of emission of Sulphur Dioxide:		a) Wet Limestone based FGD system (without	1.0%	<p>Additional Aux consumption for FGD</p> <p>1. The power consumption of the desulfurization system is closely related to the parameters such as the amount of flue gas, the concentration of sulfur dioxide, the purity of limestone and the desulfurization efficiency, each unit is different and cannot be calculated according to the same standard. Therefore proposed "one-size fits all" approach is not workable and lenders will have serious concern over under-recovery of increased auxiliary consumption. Hence, the proposed auxiliary consumption of 1% for wet limestone FGD system irrespective to generating unit size may not be appropriate.</p> <p>2. So it is necessary that the auxiliary consumption may please be</p>
Name of Technology	ΔAUX (as % of gross generation)								
(1) For reduction of emission of Sulphur Dioxide:									
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		Gas to Gas heater)		<p>specified for different generating unit sizes.</p> <p>3. Moreover, majority of wet limestone based FGD suppliers are quoting minimum auxiliary consumption of 1.2% for unit size of 660 MW and it is in the range of 1.3% to 1.4 % for unit size of 300 MW and below. Hence it is proposed to specify separate auxiliary energy consumption norms for emission control system for different unit sizes as per the percentage mentioned above.</p> <p>Aux consumption for SNCR:</p> <p>1. SNCR requires additional equipments to be installed which inter alia include Ammonia storage and handling system</p> <ul style="list-style-type: none"> a) Ammonia vaporization system b) Ammonia Dilution system c) Ammonia injection system d) Waste ammonia dilution system e) Steam and condensate system f) Air Blowing System g) Nitrogen purging system h) Electricals i) Control & Instrumentation <p>2. These equipments would be consuming electrical power and hence additional auxiliary power consumption would be there if SNCR in installed.</p> <p>3. There is no experience in the country regarding SNCR and hence instead of notifying norms for auxiliary consumption without having the actual feedback, it would be prudent if actual additional auxiliary consumption due to SNCR is monitored and allowed as pass through cost for initial period of 3-4 years and based on the data collected, norms for the same can be notified subsequently.</p>	
b) Lime Spray Dryer or Semi dry FGD System	1.0%	c) Dry Sorbent Injection System (using Sodium bicarbonate)	NIL		
b) Lime Spray Dryer or Semi dry FGD System	1.0%	c) Dry Sorbent Injection System (using Sodium bicarbonate)	NIL		
(2) For reduction of emission of oxide of nitrogen:					
a) Selective Non-Catalytic Reduction system	NIL	b) Selective Catalytic Reduction system	0.2%		
<p>Provided that where the technology is installed with Gas to Gas heater, auxiliary energy consumption specified as above shall be increased by 0.3% of gross generation.</p>					
9	Impact of	4.18-			The original Auxiliary Consumption AUX _{org} proposed under para 4.19 would

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	<p>AUX_{ECS} on Quoted Capacity Charge</p>	<p>1. $NECC_{Mod} = NECC \times (1 - AUX_{Org}) / (1 - AUX_{Total})$</p> <p>2. $ECC_{Mod} = ECC \times (1 - AUX_{Org}) / (1 - AUX_{Total})$</p> <p>Where,-</p> <p>NECC- Quoted Non-Escalable Capacity Charge</p> <p>ECC- Quoted Escalable Capacity Charges</p> <p>NECC_{Mod} - Modified Non-escalable capacity charges</p> <p>ECC_{Mod}- Modified escalable capacity charges</p> <p>Availability (%) = (Availability declared in respect of revised capacity in MW × 100)/ Revised Contracted Capacity</p> <p>4.19- The Revised Contracted Capacity after installation of the ECS can be arrived at as follows:</p> <p>$CC_{Revised} = CC_{Org} \times (1 - AUX_{Total}) / (1 - AUX_{Org})$ where $AUX_{Total} = AUX_{Org} + AUX_{ECS}$</p>	<p>make the contracted capacity dynamic as the actual auxiliary consumption would vary from period to period.</p> <p>Hence it is proposed that the Original Aux Energy Consumption and the Aux consumption of ECS may be fixed.</p>

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		<p>The Original Auxiliary Energy Consumption (AUX_{Org}) shall be the minimum of actual auxiliary energy consumption and values arrived at by applying one of the following methodologies:</p> <p>a) where 100% ex-bus capacity is tied up under single PPA such as in case of UMPP (Ultra Mega Power Project), the auxiliary energy consumption computed as per the following formula: $\left[\frac{\{(\text{actual Installed Capacity or capacity indicated in RFP whichever is lower}) - (\text{aggregated contracted capacity})\}}{(\text{actual Installed Capacity or capacity indicated in RFP whichever is lower})} \right];$</p> <p>b) auxiliary energy consumption mutually agreed between the parties under PPA;</p> <p>c) auxiliary energy consumption indicated in any of the Petitions filed earlier by the generating station that has been accepted by the Appropriate Commission;</p> <p>d) in case of unavailability of figures as at (a), (b) and (c) above, auxiliary energy consumption as per the 2014 Tariff Regulations or the 2019 Tariff Regulations, as the case may be, in respect of generating stations with commensurate technical parameters. .</p>	
10	Impact of AUX_{ECS} on	4.25- Escalable Energy Charges (EEC)	The original Auxiliary Consumption AUX _{org} proposed under para 4.19 would make the contracted capacity dynamic as the actual auxiliary consumption

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	Quoted Energy Charge	$EEC_{Mod} = EEC \times (1 - AUX_{Org}) / (1 - AUX_{Total})$ <p>Non-Escalable Energy Charges (NEEC)</p> $NEEC_{Mod} = NEEC \times (1 - AUX_{Org}) / (1 - AUX_{Total})$ <p>4.27.- As such, except for the change in formulae for calculating availability (%) and revision of components of quoted tariff as discussed above, all other terms, conditions and methodology for recovery of original capacity and energy charges as per respective PPAs shall prevail.</p>	<p>would vary from period to period.</p> <p>Hence it is proposed that the Original Aux Energy Consumption and the Aux consumption of ECS may be fixed.</p>
	Recovery of Supplementary Capacity Charges	<p>5.1.- The Supplementary Annual Capacity Charges (SACC) shall be payable by following procedure</p> <p>1) The $SACC_{PPA}$ (Rs. in lakhs) will be converted into per unit charges by applying following formula: Supplementary capacity charge rate (Rs./kWh) $= [SACC_{PPA} \times 10^5 / \{ CC_{Revised} \times 1000 \times (1 - AUX_{Total}) \times NA \times \text{Total hours in the year}]$ Where NA is normative availability in percentage (%).</p> <p>2) By applying the above value of the Supplementary capacity charge rate (Rs./kWh), the generating company, based on the formulae or methodology</p>	

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		<p>for recovery of quoted non-escalable capacity charges as indicated in the PPA, shall recover the supplementary capacity charges on monthly basis depending upon the cumulative availability achieved till the end of each month. No supplementary incentive shall be allowed to the generating company for declaring the availability beyond the normative availability. The availability and payment of supplementary capacity charges shall be reconciled on annual basis.</p> <p>3) Notwithstanding the availability declaration by the generating station, where the generating company has operated the generating station without operation of the ECS at any period of time, for any reason whatsoever based on instruction of CPCB or SPCB, Regional Load Despatch Centre or State Load Despatch Centre, the supplementary capacity charges shall be payable corresponding to the availability achieved by ECS.</p>	
11	Recovery of Supplementary Energy Charges	<p>5.3.- The recovery of monthly Supplementary Energy Charges (SEC_m) will be made by applying following formula:</p> $SEC_m \text{ (Rs.)} = AEO_m \times [(SRC)/(1-AUX_{Total})] \times LPR / 1000$	<p>Supplementary Energy charge should also include the following</p> <ol style="list-style-type: none"> 1. cost of additional water required for emission control system 2. Water treatment cost and waste water disposal cost 3. Byproduct disposal cost <p>CEA has also recommended above additional O&M expenses in</p>

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		<p>Where, AEO_m is the scheduled energy during the month 'm' (in kWh) SRC is the specific reagent consumption on account of emission control system (in g/kWh) for a unit generated at generator terminal. This shall be normative number recommended by CEA for different variants of the ECSs as indicated in <i>Annexure-1</i>. LPR is the weighted average landed price of reagent for ECS (in Rs./kg).</p>	<p>respect of wet limestone based FGD emission control system which is mentioned in the order by Hon'ble CERC, dated 11th November 2019 in the petition no 152/MP/2019 (Maithon Power Limited).</p> <p>It is disheartening to note that this crucial aspect stands unaddressed and thereby threatens very recovery of operating costs.</p> <p>Lenders will not like to go ahead with FGD financing when they clearly see that recovery of such operating costs as enumerated above is not addressed in the proposed compensation (tariff) mechanism.</p>
12	Procedure for Payment of Supplementary Capacity & Energy Charges	<p>5.4. - PPAs already have a procedure for payment of Bills and there is no need to devise any separate procedure for the purpose of payment of monthly Supplementary Capacity Charges and monthly Supplementary Energy Charges. The generating company may raise the Bill for payment on account of operation of ECS in the same manner as any other bill provided in the PPA and such Bill shall be paid by the procurer(s). Provisions related to Due Date, Rebate, Late Payment Surcharge etc. will be as provided in the PPAs.</p>	
13	Norms for consumption of reagent:	<p>Annexure-1- 2.(1) (a) For Wet Limestone based Flue Gas Desulphurisation (FGD) system: The specific limestone consumption (g/kWh) shall be worked out by following formula: $= [0.85 \times K \times SHR \text{ (kCal/kWh)} \times S$</p>	<p>Formula proposed for consumption of reagent for wet limestone based FGD needs review as the calculated normative consumption of reagent using the said formula comes to 25% to 30% lower as compared to the guaranteed reagent consumption offered by majority of vendors of wet limestone based FGD.</p> <p>This clearly implies under-recovery of operating costs and lenders will not want to consider proposal for funding FGD when they clearly see in-built</p>

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		<p>(%)]/[GCV (kCal/kg) x LP (%)]</p> <p>Where,</p> <p>S = Sulphur content in percentage, LP = Limestone Purity in percentage; Provided that value of K shall be equivalent to (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%.</p> <p>2.(2) (a) For Selective Non-Catalytic Reduction (SNCR) System: The specific urea Consumption of SNCR system shall be 1.2 gm per kWh at 100% purity of urea.</p>	<p>under-recovery of operating costs.</p> <p>Minimum normative reagent limestone norm may be specified as 15 g/kWh (Hon'ble CERC had proposed the same in the draft CERC (Terms and Conditions for determination of tariff) Regulations 2019).</p> <p>Also provision should be made for transportation loss, yard losses, losses due to moisture for limestone similar to the norms specified for coal.</p> <p>Similarly, norms for sampling point, measurement method for purity of limestone may be specified similar to the norms specified for the coal.</p> <p>Proposed provision for Minimum purity of limestone not less than 85% may be withdrawn as the purity of the limestone will depend upon its availability in the vicinity of the plant which is beyond the control of the generator. Provision may be made to recover the landed cost of the limestone even if the purity of the limestone is less than 85%.</p> <p>There is no experience in the country regarding SNCR/SCR and hence instead of notifying norms for reagent consumption without having the actual feedback, it would be prudent if actual consumption of reagent due to SNCR/SCR is monitored and allowed as pass through cost for initial period of 3-4 years and based on the historical data, norms for the same can be notified subsequently.</p>
14		Recovery of Deemed Fixed Charges during shutdown period for interconnection of FGD with power plant	Staff paper is silent on the recovery of Fixed Charges of the main project during the period the plant is under shutdown on account of implementation of FGD and other equipments. Hence, it is requested that additional provision shall be incorporated to provide the recovery of fixed charges during the shutdown period.

Comments on Staff Paper on Mechanism for Compensation for Competitively Bid Thermal Generating Stations for Change in Law on account of Compliance of the Revised Emission Standards of the Ministry of Environment, Forest and Climate Change, Government of India (MoEF&CC)

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			Further, we would highlight that Deemed Fixed Charge recovery should, for projects with captive coal mine, include loss of contribution margin (total tariff without any change in law per unit – coal cost per unit) suffered by the power station vis-à-vis average PLF delivered in the previous 2 financial years FY2018-19 and FY2019-20.
15		1.7(b) Generating stations which have valid PPA(s) with procurer(s), having provisions of relief under Change in Law and the 2015 Rules qualifying as a Change in Law event in terms of the said PPA.	In order to bring out more clarity, may please modify the clause proposed as under. Generating stations which have valid PPA(s) under Section 63 of Electricity Act with procurer(s), having provisions of relief under Change in Law and the 2015 Rules qualifying as a Change in Law event in terms of the said PPA and in the process of installing / upgrading ECS.
16	Additional point		Various State Electricity Regulatory Commissions are yet to issue such guidelines related to implementation of ECS for Sec 62 and Sec 63 projects, Hon'ble CERC may provide guidance to SERCs for implementation of the same.

Thanking you.

Yours sincerely,
For **Reliance Power Limited**



Authorized Signatory