

**BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION
AT NEW DELHI**

IN THE MATTER OF

Comments on behalf of Punjab State Power Corporation Limited ('PSPCL') to the 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) dated September 2020.

MOST RESPECTFULLY SHOWETH:

1. The present comments are being filed on behalf of Punjab State Power Corporation Limited (*hereinafter called "PSPCL"*), the distribution licensee in the State of Punjab, which procures power from various generators, such as Sasan Power Limited ('SPL') and Coastal Gujarat Power Limited ('CGPL') under respective PPAs entered into under Section 63 of the Electricity Act, 2003 to meet the demand of its consumers in the State.
2. In the case of PSPCL, the procurement of power from both SPL and CGPL is under the UMPP model, i.e., multiple procurers with varying capacities but with a common PPA as per the Standard Bidding Guidelines of the Ministry of Power. The term of the PPA, the obligations of the parties, the life of the plant, etc. remain constant across all procurers in so far as SPL and CGPL are concerned.

3. It is stated that certain generators, including SPL and CGPL who supply power to PSPCL, had first approached the Hon'ble Commission for declaration of change in law and then seeking in-principle approval of the capital cost for the Emission Control Systems('ECS') that needs to be installed by such generators in order to comply with the revised environmental emission norms specified under the Notification dated 07.12.2015 issued by the Ministry of Environment, Forest and Climate Change (*hereinafter called the "2015 MOEF Notification"*).
4. The Hon'ble Commission has been provisionally allowing the capital cost based on cost discovered through competitive bidding process, indicative cost notified by Central Electricity Authority (CEA) and prudence check of the cost claimed. While approving such provisional capital cost, certain cost components like taxes and duties, IDC and management cost have not been considered, with the observation that these components shall be considered after prudence check after the installation of FGD system. Similarly, as regards opportunity cost i.e. revenue/ tariff, which may not be available to the generator during the period of plant shutdown for integration of the FGD system with the generating station, it has been decided that the same would be considered after installation of FGD system.
5. Apart from holding that the 2015 MOEF Notification is a Change in Law, the Hon'ble Commission has also approved the provisional cost sought by SPL and CGPL by various orders. Even though the PPAs are entered into under Section 63 of the Electricity Act, 2003, the Hon'ble Commission has been passing orders giving substantial comfort to

the lenders of the generating companies to fund the capital cost of the ECS.

6. Now, the Staff of the Hon'ble Commission has issued the 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 MOEF in September 2020 and has invited comments from the stakeholders by 04.10.2020.
7. In the above background, it is stated that there is no need for giving such detailed benefits to the generating stations at this stage even before installation of ECS, which include additional IWC, O&M, Financing Cost, etc. On the contrary, these aspects can be formulated based on practical experience and evidence of the FGD and other equipments, rather than giving a formulation under Section 62 of the Electricity Act to plants which were set up under Section 63 and expected to operate more economically, passing on such benefits to the consumers by way of lower tariffs.
8. Without prejudice to the above, the comments on behalf of PSPCL on the aspects of the Staff Paper are as under:
 - (i) ***Depreciation (ACE_{Dep}) and useful life of the ECS.***
9. The Staff Paper, under Component I – Additional Capital Expenditure (ACE_{ECS}), proposes that 90% (considering salvage value of 10%) of additional capital expenditure on account of installation of ECS is to be recovered by the generating company in 25 years as depreciation {straight line method @3.6% (90%/25) per year} starting from the Date of Operation of the ECS. The Staff Paper however, does not

provide for a mechanism where the compensation is proportionally distributed among the respective procurers.

10. Even though this may not affect PSPCL in the cases of SPL and CGPL, in future cases, certain difficulties may arise. This is because while the debt obligations are higher during the initial years, the same are comparatively lower during the later years. The Cost of ECS will therefore be front-loaded and in case distribution companies have shorter-duration contracts. The said distribution companies will be paying higher during the first few years without getting the benefit of the lower tariff in the subsequent years. Therefore, this aspect may be taken into consideration while deciding on the recovery of the ECS Cost.

(ii) Cost of Capital Employed (ACE_{coc})

11. In the Staff Paper, it has been proposed that irrespective of the infusion of debt or equity to fund the ECS, the Capital Expenditure would be serviced on Net Fixed Assets (NFA) basis at either the weighted average rate of interest of actual loans raised by the generators or at the MCLR of State Bank of India plus 350 basis points, as on 1st April of the year in which the ECS is put into operation, whichever is lower.
12. However, the cost of Capital Employed is proposed to be given on the entire Capital Expenditure (100%) instead of 90%, which the Staff Paper itself has itself considered for recovery of depreciation {straight line method @3.6% (90%/25) per year}. When the scrap value of the ECS is considered as 10% and only 90% is the depreciable value, and also considering that Depreciation is equated

to loan repayment, the cost of Capital Employed should also be restricted to 90% of the Capital Expenditure incurred on ECS.

13. The equity component which is invested will also be serviced as a debt but the servicing cannot go beyond 90% of the capital cost incurred.

(iii) Additional O&M Expenses ($ARE_{O\&M}$) and Additional Interest on Working Capital (ARE_{IWC})

14. The Staff Paper envisages that additional O&M Expenses and additional interest on Working Capital are to be reimbursed to the generators by way of Supplementary Annual Capacity Charges ('SACC').

15. This approach itself is incorrect and against the principles of Section 63 of the Electricity Act, 2003 which was to avoid going into individual tariff components being incurred by various generators. There is no doubt that certain additional O&M will have to be incurred by the generators for operation and maintenance of the ECS. The Hon'ble Commission has already decided in its various orders that this would be reimbursed at 2% of the Capital Cost. There is no basis to assume an escalation of 3.5% or any other rate to be specified by the Hon'ble Commission. It would be better to call for data from the generating stations which should maintain the O&M incurred on the ECS as a separate component and based on such data, decide if any escalation needs to be given. This would also ensure that the generating stations are incentivised to reduce the O&M Expenses.

- 16.** The O&M Expenses consist of broadly Employee Cost, Repair and Maintenance ('R&M') Expenses and Administrative and General ('A&G') Expenses. To the best understanding of PSPCL, the generators will not be maintaining additional employees or booking additional R&M and A&G Expenses for ECS. There is no way to know as to what component of O&M Expenses was factored in by the generators while quoting and winning the bid. It would therefore be an aberration to permit such high O&M Expenses along with further yearly escalation of 3.5% only towards ECS.
- 17.** There is also an anomaly in the manner the additional O&M is proposed to be recovered as part of SACC and further additional operational expenses due to consumption of Reagent (AOE_{COR}) is proposed to be recovered as additional Supplementary Energy Charge Rate ('SECR'). If additional O&M is given, all operational expenses should be subsumed in the same. This error gets further fortified in the formula proposed for additional IWC (ARE_{IWC}). Apart from the contention that there is no scope for permitting additional IWC in a Section 63 process, the formula proposed seeks to give not just the O&M Expenses for one month and maintenance spares at 20% of O&M Expenses, but also the cost of reagent for 20 days corresponding to NAPAF with advance payment for 30 days towards its cost. This is preposterous. No data has been placed by any of the generators as to the terms of purchase of reagent so as to enable the Staff to come to the conclusion that the cost of reagent should be taken towards additional IWC.

- 18.** Further, there is no basis to provide receivables equivalent to 45 days of SACC and SECR calculated on NAPAF as a third component of IWC. As per the PPA, the payment terms, payment period, LPSC, and rebate flow from the standard bidding guidelines and standard PPAs finalised by the Ministry of Power. In such a case, how can an artificial component of receivables for 45 days be introduced in the additional IWC is not clear to PSPCL.
- 19.** It is appreciated that the Hon'ble Commission wishes to find a solution to the issue of implementation of the 2015 MOEF Notification by the generating companies. However, to change the manner of determination of tariff itself for one component of ECS is against the spirit of the Electricity Act and the distinction sought to be made by the legislature between Section 62 and 63 projects. The Hon'ble Commission has a responsibility even towards the distribution licenses and cannot so blatantly ignore the provisions of the Electricity Act merely because the Change in Law provision in the PPA is based on restitutory principle.
- 20.** The principle of restitution will stand satisfied as long as the additional capital expenditure being incurred by the generating companies gets recovered. There is no need to provide each and every component of Section 62 tariff determination to reconstitute the generators.
- (iv) *Reduction of Cost of Gypsum from the Additional Operational Expenditure due to consumption of Reagent.***
- 21.** The Staff Paper provides for an additional cost on account of some kind of reagent which is required to be used in the

ECStomeetthenorms as specified by the 2015 MOEF Notification. The CEA (Central Electricity Authority) has suggested the norms of specific reagent consumption (grams/kWh), which are at the generator terminal i.e. it is for gross generation from the generating station. The Staff Paper accordingly enumerates that to arrive at the cost of reagent per unit of electricity generated ex-bus of generating station, the cost of reagent at generator terminal shall be grossed up with the auxiliary energy consumption of the generating station after installation of the ECS.

22. PSPCL submits that there would be a double benefit to the generators by, on the one hand, granting additional O&M Expenses as a part of Additional Supplementary Capacity Charges (*at this stage it is not clear as to what additional O&M Expenses will be incurred by the generators, since it is being given as a percentage of capital cost*) and on the other hand, granting additional Operational Expenses as part of the additional Supplementary Energy Charge Rate.
23. Surprisingly, when it comes to additional IWC, all three components are being taken separately:
 - (i) Cost of Reagent for 20 days, plus advance payment for 30 days (corresponding to NAPAF);
 - (ii) O&M Expenses for one month;
 - (iii) 20% of O&M Expenses as maintenance spares.
24. The Staff Paper however does not mention about a by-product of the FGD System, i.e., Gypsum. Gypsum has commercial value and is saleable in the market and therefore, the revenue that the generator might get on sale of Gypsum, irrespective of whether actual sale has

taken place or not, should thus be netted off, on the basis of market price of Gypsum, from the cost of the Reagent.

25. The CEA has so far only stated that there would be some reagent consumption. A perusal of Annexure-I itself shows the wide variation in the consumption of reagent which would depend on the technology used by the generators. Therefore, it would be best that the cost of reagent be off-set against the amounts recovered by the generators from the sale of Gypsum. This would also ensure accountability and efficient operation.

26. The norms of consumption of reagent for reduction of NO_x is an excess since the NO_x norms prescribed in the 2015 MOEF Notification are proposed to be modified, as submitted by MOEF itself by way of an affidavit before the Hon'ble Supreme Court stating that a consensus has been reached between the Environment Pollution (Prevention and Control) Authority for National Capital Region, Ministry of Power, Central Pollution Control Board, Central Electricity Authority, NTPC Limited and itself for revision of NO_x norms from 300 mg/Nm³ to 450 mg/Nm³ for Thermal Power Plants installed between 01.01.2014 to 31.12.2016 and the same will be presented for final decision to the Secretary, MOEF and the Secretary, Ministry of Power. The same is incorporated in the Hon'ble Supreme Court's order dated 05.08.2019, which reads as under:

"6. After detailed discussion, it was agreed in principle to revise the NO_x norms from 300 mg/Nm³ for Thermal Power Plants installed between 01/01/2014 to 31/12/2016 and same will be presented for a final decision to Secretary MoEF&CC and Secretary MoP.

Let the action be taken on the basis of the consensus that has been reached. Let a report with respect to the pilot project be submitted to this Court within three months.”

27. The PSPCL and other distribution companies have been repeatedly requesting the Hon’ble Commission not to approve any additional capital cost in so far as NO_x is concerned. Accordingly, there is no question of taking the normative consumption of any reagent towards reduction of NO_x at this stage.

DATE: 04.10.2020
PLACE: Patiala

**Punjab State Power Corporation
Limited (PSPCL)**