

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 210/MP/2019

Coram:

**Shri P.K. Pujari, Chairperson
Shri I.S. Jha, Member**

Date of Order: 18 May 2020

In the matter of

Petition under Section 79(1)(b) read with 79(1)(f) of the Electricity Act, 2003 and Article 34.1 of the Power Supply Agreement dated 18.2.2016, for the approval and consequent relief sought by the Petitioner due to a 'Change in Law' event viz. the introduction of new environmental norms by way of the Environment (Protection) Amendment Rules, 2015 issued by the Ministry of Environment, Forest and Climate Change dated 7.12.2015, impacting the revenues and costs of the Petitioner during the operating period.

And

In the matter of

Sembcorp Energy India Limited
6-3-1090, A Block,
5th Floor, T.S.R. Towers,
Rajbhawan Road, Somajiguda,
Hyderabad-500082

.....Petitioner

Vs

1) Southern Power Distribution Company of Telangana Limited (TSSPDCL),
Formerly, Central Power Distribution Company of Andhra Pradesh Limited),
Mint Compound, Hyderabad-500063, Telangana

2) Northern Power Distribution Company of Telangana Limited (TSNPDCL),
(Formerly, Northern Power Distribution Company of Andhra Pradesh Limited),
Vidyuth Bhavan, Nakkalagutta,
Hanamkonda, Warangal-506001

.....Respondents

Parties Present:

Shri Sanjay Sen, Sr. Advocate, SEIL.
Shri Nitish Gupta, Advocate, SEIL.



Ms. Parichita Chowdhury, Advocate, SEIL.
Ms. Swapna Seshadri, Advocate, Telangana Discoms.
Shri Damodar Solanki, Advocate, Telangana Discoms.

ORDER

The Petitioner, Sembcorp Energy India Limited (SEIL), is a generating company having a Thermal Power Plant (hereinafter referred to as the Project) of 2x660 MW (1320 MW) installed capacity at Nellore, Krishnapatnam, Andhra Pradesh. The Respondents 1 and 2 are the distribution licensees in the State of Telangana. The Petitioner and the Respondents have, on 18.2.2016, executed a Power Supply Agreement (PSA) for 570 MW of power from the Project.

Background

2. Unit-1 of the Project was commissioned on 2.3.2015 and Unit-2 was commissioned on 15.9.2015. On 7th December, 2015 the Ministry of Environment, Forest and Climate Change, Government of India (MoEF&CC) issued a Notification (hereinafter referred to as the "2015 Notification") which mandatorily required all thermal power plants to comply with the revised environmental norms (hereinafter referred to as the "Revised Norms") on or before 6.12.2017 i.e. within a period of 2 years from the date of the 2015 Notification. The present Petition has been filed by the Petitioner, SEIL for the expenditure proposed to be incurred to comply with the 2015 Notification in the Project with the following prayers:

a) *Declare that the amendment of the Environment (Protection) Amendment Rules, 2015 dated 7.12.2015 is a Change in Law event in accordance with the relevant provisions of the Power Purchase Agreement dated 18.2.2016;*

b) *Approve the technology prescribed by the CEA and the indicative costs as mentioned in the present Petition to enable the Petitioner to comply with the Change in Law notification dated 7.12.2015;*



c) *Declare that additional capital cost and operational cost along with other expenses shall be considered on an actual basis for the Change in Law relief in terms of the provisions of the PPA dated 18.2.2016;*

d) *Pass such other further order(s) as the Hon'ble Commission may deem just and proper."*

3. The Petitioner appointed Tata Consulting Engineers Limited (TCE) to prepare a feasibility report on the technology, equipment and cost estimates for implementing the necessary measures to comply with the Revised Norms. A copy of the report prepared by TCE was also submitted by the Petitioner to the Central Electricity Authority ("CEA"). CEA vide its letter dated 15.4.2019 has given its recommendations as regards installation of FGD system to the Petitioner.

Submissions of the Petitioner

4. The Petitioner vide affidavit dated 20.7.2019 has submitted that with the introduction of the 2015 Notification, all new and existing thermal power plants were required to comply with the Revised Norms within a period of two years from the 2015 Notification. MoEF&CC by way of the amendment vide the 2015 Notification:

(a) revised emission parameters of Suspended Particulate Matter (SPM) to 50 mg/Nm³ instead of 100 mg/Nm³ that existed under the then prevalent 1986 Rules;

(b) introduced emission limits for new substances:

(i) Sulphur Dioxide (SO₂) emission limited to 200 mg/Nm³;

(ii) Oxides of Nitrogen (NO_x) emission limited to 300 mg/Nm³; and

(iii) Mercury (Hg) emission limited to 0.03 mg/Nm³.

(c) directed that all Thermal Power Plants (TPPs) with Once Through Cooling ("OTC") shall install Cooling Tower ("CT") and achieve a specific water consumption up to maximum of 3.5 m³/MWh.



5. The Petitioner has submitted that issuance of the 2015 Notification is a Change in Law event covered under Article 34 of the PSA dated 18.2.2016. The Revised Norms specified in the 2015 Notification require the Petitioner to incur additional capital expenditure and operational expenditure.

6. The Petitioner has submitted that Flue Gas Desulphurization (FGD) system is required to meet new norms of SO₂ and Selective Non-Catalytic Reduction (“SNCR”) system is required to meet the new norms of NO_x. The Revised Norms required by the 2015 Notification were not mandated in the extant rules and regulations prevailing at the time of bid submission. The norms applicable as regards the Petitioner’s Project after the 2015 Notification are as under:

Applicable emission norms for the Project as per the 2015 Notification				
Year of Commissioning of Petitioner’s Power Plant	SPM	SO₂	NO_x	Mercury
2015	50 mg/Nm ³	200 mg/Nm ³ for >500MW	300 mg/Nm ³	0.03 mg/Nm ³

7. The Petitioner has submitted that as a result of the 2015 Notification, the Petitioner is compelled to incur additional expenditure towards the installation of FGD system, SNCR system and/or extensive modifications to the combustion system. Additional installation of plant, machinery and equipment on account of these, will result in an increase in the capital expenditure and operation and maintenance expenditure of the Project. Further, there will also be an impact on the operational parameters such as the Auxiliary Power Consumption and the plant of the Petitioner would remain under shut down during the period of installation and commissioning of these equipment. These would lead to a loss of revenue and increase in expenditure for the Petitioner.



8. The Petitioner has submitted that it has taken appropriate actions for compliance with the Revised Norms applicable to the Project. In this regard, by way of communication dated 6.6.2019, the Petitioner duly informed the Respondents of the 2015 Notification. In the said letter, the Petitioner apprised the Respondents of the 2015 Notification and the consequent measures that it will have to undertake to comply with the Revised Norms.

9. As per the assessment of TCE to comply with new norms of SO₂, the Petitioner will be required to incur an additional expenditure to the tune of approximately Rs.0.51 crore/ MW on account of capital cost and approximately Rs. 9.27 lakh/MW/year on account of operation and raw material cost for installation of FGD system. To comply with the new norms of NO_x, the estimated cost for SNCR and/or extensive modifications to combustion system is Rs. 0.034 crore/MW (a total of Rs. 45 crore for two units of the Project) on account of capital cost and Rs.1.11 lakh/MW on account of operation and raw material cost.

10. The Petitioner has submitted that the aforesaid estimate covers one-time capital expenditure and recurring operational expenditure for the remaining tenure of the PSA but does not include the estimate of cost of Interest During Construction (IDC), applicable taxes, margin money for working capital, exchange rate variation and cost of hedging, pre-operative expenses, escalation on the Secondary Fuel Oil costs and Start Up Power and Return on Equity (ROE).

11. The Petitioner has submitted that CEA in its report dated 15.4.2019 has analyzed the technologies in respect of the Petitioner's Project for compliance with the 2015 Notification and given its recommendations as regards technology,



engineering aspects, auxiliary power consumption, indicative cost estimation, capital expenditure, operational expenditure and opportunity cost.

Submissions of the Respondents (TSSPDCL & TSNPDCL)

12. The Respondents in their combined reply vide affidavit dated 13.11.2019 filed on 20.11.2019 have submitted that the Petitioner has not furnished the actual emission profile of the Project as recorded on the cut-off date and at present.

13. The Respondents have submitted that the Petitioner has issued notice of Change in Law on 6.6.2019, and in no case a time period of 4 years can be said to be reasonable time in terms of PSA. Even if considering the COD of 15.9.2015 and power supply date of 30.3.2016, the notice is delayed by more than three years and no reasons have been furnished by the Petitioner for this delay.

14. The Respondents have submitted that the Petitioner is required to submit all relevant consents and clearances and the standards prescribed by the Central Pollution Control Board (CPCB) and the Andhra Pradesh Pollution Control Board as on the cut-off date. The Petitioner is also required to submit the actual readings of the emissions from the Project since COD of its units and to state whether any material change has been brought about by the 2015 Notification as regards the Project.

15. The Respondents have submitted that the Petitioner has not adhered to the Change in Law provision under Article 34 while filing the present Petition. The Petitioner without appreciating the provisions regarding relief under the said Article, especially Articles 34.1 and 34.4, has prematurely approached this Commission to seek an in-principle approval, without having incurred any expense and without any documentary proof of any increase in expense/ decrease in revenue for establishing the impact of the alleged 'Change in Law' event.



16. The Respondents have submitted that the Environmental Clearance dated 4.11.2009 given to Petitioner stipulated that all the emission norms were to be complied with. The Environmental Clearance also mandated the Petitioner to display the actual emission on real-time basis at the plant. Newer plants such as that of the Petitioner's Project with advance machines of 660 MW using supercritical technology were already achieving the norms prescribed in the 2015 Notification.

17. The Respondents have further submitted that the Aggregate Contracted Capacity under the PPA dated 18.02.2016 is 570 MW for a period of 8 years. However, the Petitioner has made the present claims based on entire installed capacity of 660 MW of Unit-2, whose useful life would be 25 years. This cannot be permitted and in any case, the effect of any Change in Law subsequent to the cut-off date should be restricted to incremental cost or additional expenditure on installation or up-gradation of the plant and equipment and not for the entire capital expenditure.

Rejoinder of the Petitioner

18. The Petitioner has filed its rejoinder vide affidavit dated 26.12.2019. With regard to delay in issuing of the notice of 'Change in Law' to the Respondents, the Petitioner has submitted that the COD of the generating station is 15.9.2015, and cutoff date for triggering the Change in Law event is 10.9.2015. After coming into force of the 2015 Notification, there was no clarity as to how the whole scheme is to be implemented. Without the said clarity, the Petitioner could not possibly have notified the Respondents of the said 'Change in Law' event. The requirement for sending a notice of Change in Law under the provisions of the PSA is a procedural requirement which the Petitioner has complied with. The alleged non-fulfillment of the said procedural requirement cannot take away the substantive rights of the Petitioner



and it cannot be read in isolation without looking at the corresponding circumstances that were present at various points of time.

19. The Petitioner has reiterated that at this stage it is only praying that the 2015 Notification be declared as a 'Change in Law' event affecting the Project of the Petitioner and that the additional capital cost and operational cost along with expenses on account of generation loss, reduction in efficiency, deterioration of heat rate and other expenses, be considered on actual basis for Change in Law relief in terms of provisions of the PSA to ensure that the Petitioner is brought to the same economic position as if such Change in Law event has not occurred.

20. With regard to the details as sought by the Respondents, the Petitioner has submitted that a letter dated 15.7.2019 shows that the Petitioner has answered all the questions raised by the Respondents in their letter dated 29.6.2019. The Petitioner has provided the Respondents with the manual for boiler providing technical details of boiler including burner, the ESP sizing calculation sheet, the actual existing SPM emissions of the plant, and the details of water consumption. Therefore, the allegation of the Respondents that the Petitioner has not provided details as sought is incorrect.

21. The Petitioner has submitted that dispute as to whether the Petitioner is obligated to install FGD and SNCR system is put to rest in terms of the letter of Central Pollution Control Board (CPCB) dated 11.12.2017, which has directed the Petitioner to install the same. Further, the CEA's letter dated 15.4.2019 also substantiates the need for installation of FGD and SNCR system. CEA has also provided technical recommendations for installation of FGD and SNCR systems, which itself demonstrate that the Petitioner's Project was not compliant with the



Revised Norms as per the 2015 Notification. Prior to the 2015 Notification, FGD and SNCR systems were required to be installed only for meeting the ambient air quality norms. The norms of SO₂ in stack emission have been introduced only through the 2015 Notification. There have also been new requirements for emission of NO_x. The Revised Norms can only be met by undertaking construction of new FGD system and SNCR system as the existing emission control systems at the Project have been envisaged and developed keeping in mind the emission norms prevalent prior to the 2015 Notification viz. the National Ambient Air Quality Standards.

Hearing on 27.2.2020

22. The Commission vide ROP of the hearing dated 27.2.2020, directed the Petitioner to provide the following details:

- (a) Environment Clearance in respect of Project;
- (b) Upfront allocation of funds for the environmental protection measures at the inception of the Project, if any;
- (c) Details of cost estimates submitted to lenders for financial closure of the Project;
- (d) Clarify as to whether the requirement of FGD was envisaged in the Investment Approval;
- (e) Six monthly report filed before CPCB for any period around December, 2015; and
- (f) Cost benefits analysis of the selected technology out of the two technologies suggested by CEA in its recommendation dated 15.4.2019.

23. The Petitioner vide affidavit dated 13.3.2020 in its reply to the directions of the Commission has submitted a copy of the Environment Clearance and stated that an amount of approximately Rs. 933.5 crore was allocated for environment protection measures. The activities for which amount was allocated in terms of the



Environmental Clearance were limited to electrostatic precipitator (ESP)/ bag-filters; desalinization plant; ash handling system; dust extraction and suppression system; sewage collection, treatment and disposal; Green Belt, afforestation, and landscaping; environmental laboratory equipment (including online emission monitoring system); cooling towers etc. The Petitioner has submitted that no funds were allocated towards FGD system as the same was not envisaged under the Environmental Clearance. The Petitioner has also submitted that the requirement of FGD was not envisaged in the Investment Approval of the Project. The Petitioner has also placed on record the stack emission data from January 2016 to December 2019. The Petitioner has also submitted cost benefit analysis of the selected technology (wet lime based FGD system) out of the two technologies recommended by CEA.

24. The Respondents vide affidavit dated 19.3.2020 have reiterated their contention that the provisions of Article 34 of PSA with regard to notification of Change in Law have not been complied by the Petitioner. The Respondents have submitted that condition (xxxiv) under the Environmental Clearance mandated that the Petitioner has to allocate separate funds for implementation of environmental protection measures as part of the project cost, which the Petitioner could not have diverted. The Petitioner also had to maintain a separate fund with item-wise break up and report the same to the MOEF&CC on a yearly basis.

25. The Respondents have submitted that newer plants with advance machines of 660 MW using supercritical technology were already achieving the norms prescribed in the 2015 Notification. The Respondents have submitted that once the emission profile of the Project is placed on record, it will be clear that the Project of the



Petitioner falls under the second exception of the MoP Notification dated 30.5.2018 and, therefore, the Petitioner's claim of 'Change in Law' is not admissible.

Analysis and Decision

26. Based on the submissions of the Petitioner, replies of the Respondents, rejoinders and other documents placed on record, the issues which arise for the consideration in the present petition are:

Issue No. 1: Whether the 2015 Notification qualifies to be considered as an event of Change in Law in terms of the PSA dated 18.2.2016 between the Petitioner and the Procurer-Respondents?

Issue No. 2: If so, whether the requirement of notice as per the provisions of Article 34 of the PSA have been complied with by the Petitioner?

Issue No. 3: Whether provisional approval of capital expenditure can be granted to the Petitioner for incurring proposed expenditure towards installation of FGD system?

Issue No. 4: Whether additional capital cost and operational cost along with other expenses shall be considered on an actual basis for the Change in Law relief in terms of the provisions of the PSA dated 18.2.2016?

Issue No. 5: What shall be the norms and mechanism for computing the adjustment in tariff corresponding to the additional investment and increase in the operating costs due to the 2015 Notification so as to restore the Petitioner to same economic position as if such Change in Law event has not occurred?

27. We deal with the above issues in subsequent paragraphs.

Issue No.1: Whether the 2015 Notification qualifies to be considered as an event of Change in Law in terms of the PSA dated 18.2.2016 between the Petitioner and the Procurer-Respondents?

28. The Petitioner has entered into a Power Supply Agreement dated 18.2.2016 with the two procurers in the State of Telangana i.e. Southern Power Distribution Company of Telangana Limited (TSSPDCL) and Northern Power Distribution



Company of Telangana Limited (TSNPDCL), for supply of 570 MW from its Project.

Article 34 of the PSA which deals with Change in Law is extracted as under:-

“ARTICLE 34

CHANGE IN LAW

34.1 Increase in costs

If as a result of Change in Law, the Supplier suffers an increase in costs or reduction in net after-tax return or other financial burden for and in respect of Contracted Capacity, the aggregate financial effect of which exceeds the higher of Rs. 1 crore (Rupees one crore) and 0.1% (zero point one per cent) of the Capacity Charge in any Accounting Year, the Supplier may so notify the Utility and propose amendments to this Agreement so as to place the Supplier in the same financial position as it would have enjoyed had there been no such Change in Law resulting in increased costs, reduction in return or other financial burden as aforesaid. Upon notice by the Supplier, the Parties shall meet, as soon as reasonably practicable but no later than 30 (thirty) days from the date of notice, and either agree on amendments to this Agreement or on any other mutually agreed arrangement:

Provided that if no agreement is reached within 90 (ninety) days of the aforesaid notice, the Supplier may by notice require the Utility to pay an amount that would place the Supplier in the same financial position that it would have enjoyed had there been no such Change in Law, and within 15 (fifteen) days of receipt of such notice, along with particulars thereof, the Utility shall pay the amount specified therein; provided that if the Utility shall dispute such claim of the Supplier, the same shall be settled in accordance with the Dispute Resolution Procedure. For the avoidance of doubt, it is agreed that this Clause 34.1 shall be restricted to changes in law directly affecting the Supplier's costs of performing its obligations under this Agreement.

34.2 Reduction in costs

If as a result of Change in Law, the Supplier benefits from a reduction in costs or increase in net after-tax return or other financial gains for and in respect of Contracted Capacity, the aggregate financial effect of which exceeds the higher of Rs. 1 crore (Rupees one crore) and 0.1% (zero point one per cent) of the Capacity Charge in any Accounting Year, the Utility may so notify the Supplier and propose amendments to this Agreement so as to place the Supplier in the same financial position as it would have enjoyed had there been no such Change in Law resulting in decreased costs, increase in return or other financial gains as aforesaid. Upon notice by the Utility, the Parties shall meet, as soon as reasonably practicable but no later than 30 (thirty) days from the date of notice, and either agree on such amendments to this Agreement or on any other mutually agreed arrangement:

Provided that if no agreement is reached within 90 (ninety) days of the aforesaid notice, the Utility may by notice require the Supplier to pay an amount that would place the Supplier in the same financial position that it would have enjoyed had there been no such Change in Law, and within 15 (fifteen) days of receipt of such notice, along with particulars thereof, the Supplier shall pay the amount specified therein to the Utility; provided that if the Supplier shall dispute such claim of the Utility, the same shall be settled in accordance with the Dispute Resolution Procedure. For the avoidance of doubt, it is agreed that this Clause 34.2 shall be restricted to changes in law directly affecting the Supplier's costs of performing its obligations under this Agreement.

34.3 Protection of NPV

Pursuant to the provisions of Clauses 34.1 and 34.2 and for the purposes of placing the Supplier in the same financial position as it would have enjoyed had there been no Change in Law affecting the costs, returns or other financial burden or gains, the



Parties shall rely on the Financial Model to establish a net present value (the "NPV") of the net cash flow and make necessary adjustments in costs, revenues, compensation or other relevant parameters, as the case may be, to procure that the NPV of the net cash flow is the same as it would have been if no Change in Law had occurred. For the avoidance of doubt, the Parties expressly agree that for determination of NPV, the discount rate to be used shall be equal to the weighted average rate of interest at which the Supplier has raised the Debt Due under its Financing Agreements.

34.4 Restriction on cash compensation

The Parties acknowledge and agree that the demand for cash compensation under this Article 34 shall be restricted to the effect of Change in Law during the respective Accounting Year and shall be made at any time after commencement of such year, but no later than one year from the close of such Accounting Year. Any demand for cash compensation payable for and in respect of any subsequent Accounting Year shall be made after the commencement of the Accounting Year to which the demand pertains, but no later than 2 (two) years from the close of such Accounting Year.

34.5 No claim in the event of recovery from Buyers

Notwithstanding anything to the contrary contained in this Agreement, the Utility shall not in any manner be liable to reimburse to the Supplier any sums on account of a Change in Law if the same are recoverable from the Buyers.

29. As per Article 39 of the PSA dated 18.2.2016, Change in Law is defined as under:

"Change in Law" means the occurrence of any of the following after the Bid Date:

- (a) the enactment of any new Indian law;*
- (b) the repeal, modification or re-enactment of any existing Indian law;*
- (c) the commencement of any Indian law which has not entered into effect until the Bid Date;*
- (d) a change in the interpretation or application of any Indian law by a judgment of a court of record which has become final, conclusive and binding, as compared to such interpretation or application by a court of record prior to the Bid Date; or*
- (e) any change in the rates of any of the Taxes that have a direct effect on the Project;"*

30. Law is not defined in the PSA. However, an interpretation of law in Article 1.2 of the PSA has been provided. As per the above interpretation, references to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into. Further, references to laws of the State, laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of



India and as from time to time may be amended, modified, supplemented, extended or re-enacted.

31. "Government Instrumentality" as per definition in Article 39 of PSA means any department, division or sub-division of the Government of India or the State Government and includes any commission, board, authority, agency or municipal and other local authority or statutory body, including Panchayat, under the control of the Government of India or the State Government, as the case may be, and having jurisdiction over all or any part of the Power Station or the performance of all or any of the services or obligations of the Supplier under or pursuant to this Agreement.

32. MoEF&CC is a Ministry under Government of India and, therefore, is a Government Instrumentality in terms of the PSA. The Environment (Protection) Rules, 1986 was issued by MoEF&CC in exercise of powers conferred under Sections 6 and 25 of the Environment (Protection) Act, 1986 which qualify as law in terms of the PSA dated 18.2.2016. The norms for emission of environmental pollutants to be complied with by the thermal power plants are prescribed in Schedule I of Environment (Protection) Rules, 1986. The 2015 Notification that was issued on 7.12.2015 brought about material change in emission standards. Before the 2015 Notification came into existence, the Petitioner has submitted that in terms of the extant rules and regulations prevailing at the time of bid submission, the Petitioner was complying with the then prevalent emission standards.

33. The 2015 Notification was issued on 7.12.2015. For an event to qualify as Change in Law as per Article 39 of the PSA, the claimed Change in Law should have taken place after the Bid Date which in the instant case is 10.9.2015. The Bid Date



being earlier than the 2015 Notification, it qualifies as a Change in Law event in case of the Project of the Petitioner.

34. Ministry of Power, Government of India in its letter dated 30.5.2018 has issued directions to this Commission under Section 107 of the Electricity Act, 2003 (hereinafter referred to as the “Act”) with regard to the implementation of the Revised Norms as per the 2015 Notification. The said letter is extracted as under:

“
No.23/22/2018- R & R
Government of India
Ministry of Power
Shram Shakti Bhawan, Rafi Marg
New Delhi, 30th May, 2018

To
The Chairperson,
Central Electricity Regulatory Commission
Chanderlok Building,
Janpath, New Delhi-110001

Subject: Mechanism of implementation of new Environmental norms for thermal power plants (TPP) supplying power to distribution licensees under concluded long term and medium term power purchase agreement (PPA)

Sir,

Ministry of Environment, Forest and Climate Change (MoEFCC) has notified the Environment (Protection) Amendment Rules, 2015 on 7th December, 2015 thereby introducing revised emission standards for Thermal Power Plants (TPPs). The revised emission standards are applicable to existing as well as upcoming TPPs. To meet the revised emission standards, the TPPs would have to install or upgrade various emission control systems like Flue-gas desulfurization (FGD) system, Electro-Static Precipitators (ESP) system etc.

2. As per implementation plan prepared by Central Electricity Authority (CEA), the existing TPPs are required to comply with the new emission standards by the year 2022.

3. Implementation of revised emission standards would face challenges relating to stringent timelines, availability of suppliers and technology, shut down for longer periods, and revenue loss during shutdown. It would also have significant implications on the tariff agreed under the long term and medium term Power Purchase Agreement (PPA) due to additional infrastructure and operational cost on account of large scale installations, renovations & retrofitting of existing plant and machinery to meet revised emission norms.

4. In view of the nature of cost involved in implementation of revised standards of emission and the provisions of Power Purchase Agreement, there is a need to develop the appropriate regulatory framework specifying the mechanism or enabling guidelines for providing regulatory certainty to the TPPs about recovery of such additional costs through tariff. It is important to ensure implementation of the revised standards of emission for TPPs for controlling pollution level in the larger public interest.



5. After considering all aspects and with due regard to the need for safeguards against environmental hazards, and accordingly to ensure timely implementation of new environment norms, the Central government has decided that-

5.1 The MOEFCC Notification requiring compliance of Environment (Protection) Amendment Rules, 2015 dated 7th December, 2015 is of the nature of Change in Law event except in following cases:

(a) Power Purchase Agreements of such TPPs whose tariff is determined under Section 63 of the Electricity Act, 2003 having bid deadline on or after 7th December, 2015; or

(b) TPPs where such requirement of pollutions control system was mandated under the environment clearance of the plant or envisaged otherwise before the notification of amendment rules;

5.2 The additional cost implication due to installation or up-gradation of various emission control systems and its operational cost to meet the new environment norms, after award of bid or signing of PPA as the case may be, shall be considered for being made pass through in tariff by Commission in accordance with the law.

5.3 The respective TPPs may approach the Appropriate Commission for approval of additional capital expenditure and compensation for additional cost on account of this Change in Law event in respect of the Power Purchase Agreement entered under Section 62 or Section 63 of the Electricity Act, 2003.

5.4 For the TPPs that are under the purview of the Central Commission, the Commission shall develop appropriate regulatory mechanism to address the impact on tariff, and certainty in cost recovery on account of additional capital and operational cost, under concluded long term and medium term PPAs for this purpose.

6. The Central Government, in exercise of the power conferred under Section 107 of the Electricity Act 2003 issues directions to the Central Electricity Regulatory Commission to implement the above decision of the Government. This direction is being issued to facilitate the smooth implementation of revised emission standards of the Environment (Protection) Amendment Rules, 2015 dated 7th December, 2015 for Thermal Power Plants in the larger public interest.

7. This issues with the approval of Minister of state (IC) for Power and NRE.

Yours faithfully
Ghanshyam Prasad
Chief Engineer”

35. The Central Government in exercise of its power under Section 107 of the Act has declared that the 2015 Notification requiring compliance of Environment (Protection) Amendment Rules, 2015, is of the nature of Change in Law event except in cases (a) where the Power Purchase Agreements of such thermal power plants have been determined under Section 63 of the Act having bid deadline on or after 7.12.2015; or (b) thermal power plants where such requirement of pollutions control system was mandated under the environment clearance of the plant or envisaged



otherwise before the notification of amendment rules. In case of the Petitioner, the Bid date was 10.9.2015 and, therefore, it is not covered under the first exception.

36. The Respondents have submitted that the case of the Project of the Petitioner falls under second exception contained in the above-mentioned letter of the Ministry of Power dated 30.5.2018 i.e. The Respondents have claimed that the Petitioner was required to comply with the Revised Norms as part of its Environment Clearance and that the 2015 Notification had no bearing in its case. The Respondents have also submitted that the Petitioner's Project being a supercritical thermal plant of 660 MW with latest technology is compliant with Revised Norms and is not required to undertake any retrofitting to comply with the same.

37. The Petitioner has submitted the summary of present air emission levels and need for abatement measures. The Petitioner has submitted the letter of CPCB dated 11.12.2017 which directs the Petitioner to undertake necessary measures to comply with the 2015 Notification. The Petitioner has also submitted that CEA's letter dated 15.4.2019 substantiates the need for installation of FGD and SNCR systems, which itself demonstrates that the Petitioner's Project was not compliant with the Revised Norms as per the 2015 Notification.

38. The Petitioner has placed on record the stack emission data from January 2016 to December 2019. Enclosing a copy of Environment Clearance, the Petitioner has submitted that approx. Rs. 933.5 crore was allocated for environment protection measures. This amount covered electrostatic precipitator/ bagfilters; desalinization plant; ash handling system; dust extraction and suppression system; sewage collection, treatment and disposal; Green Belt, afforestation, and landscaping; environmental laboratory equipment (including online emission monitoring system);



cooling towers etc. The Petitioner has submitted that no funds were allocated towards FGD system as the same was not envisaged under the Environmental Clearance. The Petitioner has also submitted that the requirement of FGD was not envisaged in the Investment Approval also.

39. Based on the submissions of the Petitioner, the documents placed on record and the perusal of the Environment Clearance, we are of the view that the Project of the Petitioner was not required to comply with the Revised Norms as per the Environment Clearance. This became mandatory only after the 2015 Notification came into force. We, thus, do not agree to the submission of the Respondents that the Petitioner's Project was required to be compliant with the Revised Norms as part of the Environment Clearance accorded to it. Also, therefore, the Petitioner's case is not covered under the second exception referred to in the letter of Ministry of Power dated 30.5.2018.

40. The Petitioner has submitted that it is required to install FGD for limiting the SO₂ emission within the Revised Norms. As regards the NO_x emission, the Petitioner has submitted that the permissible limit of 300 mg/Nm³ (6% O₂, dry basis) would be achievable at part load and at full load operation (depending on quantum of coal fired), with combustion control techniques alone. However, if the combustion tuning and optimization is not adequate to meet the new limits, then Selective Non-Catalytic Reduction (SNCR) technology with a minimum designed reduction efficiency of 35% is proposed to be installed, which is a post combustion control technology and would treat the flue gas before emission. With regard to SPM and mercury emission the Petitioner has submitted that the current ESPs (Electrostatic Precipitators) are



adequate to achieve the SPM limit of 50 mg/Nm³ and will also reduce mercury emission. Hence, no retrofit is required for controlling SPM and mercury at this stage.

41. In view of the above, we observe that the 2015 Notification has been issued by an Government Instrumentality (MoEF&CC); the 2015 Notification was issued (7.12.2015) after the Bid Date (10.9.2015) and qualifies as a Change in Law event in terms of Article 39 of the PSA; the Project is not covered under any of the exceptions of the letter dated 30.5.2018 of the Ministry of Power; both units of the Project have achieved COD before the 2015 Notification; FGD was not envisaged to be installed as per the Investment Approval of the Project; and the Project was not required to install equipment for abatement of SO₂ or NO_x to levels envisaged under the 2015 Notification as part of the Environment Clearance. Therefore, the Change in Law events brought about through the 2015 Notification qualify as Change in Law during the operating period in terms of the PSA dated 18.2.2016.

Issue No. 2: If so, whether the requirement of notice as per the provisions of Article 34 of the PSA have been complied with by the Petitioner?

42. There is no specific provision for notification of Change in Law in the PSA dated 18.2.2016. However, in Article 34.1 (quoted in paragraph 28 of this Order) which provides for the "Increase in Cost", there is a reference for notice to be given by the supplier to the procurers. It states that "*If as a result of Change in Law, -----, the Supplier may so notify the Utility and ----- . Upon notice by the Supplier, the Parties shall meet, as soon as reasonably practicable but no later than 30 (thirty) days from the date of notice, ----- . Provided that if no agreement is reached within 90 (ninety) days of the aforesaid notice, the Supplier may by notice require the Utility to pay an amount ----- and within 15 (fifteen) days of receipt of such notice -----*".



There is similar reference in Article 34.2 of the PSA that deals with the case when Change in Law leads to reduction in costs. In the latter case, the procurers have to serve notice upon the supplier. The Articles 34.1 and 34.2 of the PSA provide for timelines once the initial notice is served upon the other Party. However, there is no mention of the period when the initial notice for Change in Law is to be served upon the other Party.

43. As per the provision in Article 34.1 of the PSA, if as a result of Change in Law, the Supplier suffers an increase in costs or reduction in net after-tax return or other financial burden, it is required to give a notice to the Procurers about occurrence of Change in Law. The Petitioner has submitted that by way of communication dated 6.6.2019, the Petitioner informed the Respondents of the 2015 Notification. The Respondents have submitted that in no case a time period of 4 years can be said to be reasonable time in terms of PSA. The Petitioner in its rejoinder has submitted that there was no clarity as to how the 2015 Notification is to be implemented and, therefore, it could not have notified the Respondents of the said Change in Law event. It has submitted that the requirement for sending a notice of occurrence of Change in Law under the provisions of the PSA is a procedural requirement and non-fulfillment of the said procedural requirement cannot take away the substantive rights of the Petitioner.

44. We have already held above that the 2015 Notification is a Change in Law. Moreover, the Petitioner as well as the Respondents were aware of the 2015 Notification prior to signing of the PSA dated 18.2.2016. Also, there is no specific requirement in the PSA for notifying the Respondents in a given time frame. In our



view, the Petitioner has complied with the requirement of notice envisaged in the PSA.

Issue No. 3: Whether provisional approval of capital expenditure can be granted to the Petitioner for incurring proposed expenditure towards installation of FGD system?

45. The Petitioner had appointed TCE for estimation and preparation of feasibility report with regard to installation of systems for compliance of the 2015 Notification. TCE in its report has estimated capital cost of Rs 0.51 crore/MW for wet limestone based FGD and Rs. 0.98 crore/MW for sea water based FGD and submitted that the estimated capital cost for sea water based FGD is higher due to the requirement of large sea water intake system as the project operates on closed cycle sea water cooling system. TCE in its report has submitted that based on life cycle of the Project and cost estimates, wet limestone based FGD system is economical as compared to sea water based FGD system. The breakup of capital expenditure for selected wet limestone based FGD system as estimated by TCE is as under:

Sl. No.	CAPEX (Capital Expenditure for FGD system)	Item-wise cost break-up
Capital Expenditure (capex) for FGD		Rs. In lakhs
1	FGD Equipment & related mechanical works cost for two units	39000
2	Miscellaneous Mechanical Works cost (Common facilities for both units)	
2.1	Limestone Handling	850
2.2	Gypsum Handling	220
2.3	New Desalination plant	6500
2.4	Mechanical Miscellaneous	200
3	Total Electrical works cost (for FGD and related common facilities) of two units	2300
4	Total Civil works cost (for FGD and related common facilities) of two units	6350
5	New Chimney cost for two units	7500
6	Cost of Spares at 3% on Items 1, 2, 3 & 5	1472
	Total Cost of Works	643.92



COST OF FGD & ESP RETROFIT PER MW IN Rs. LAKH/MW		48.78
7	Contingency at 3% of total works cost	1931.8
8	Engineering and Project Management cost @	965.9
Total Cost of Works including Contingency, Engineering & Project Management (excluding taxes, insurance, duties and IDC)		672.90
COST OF FGD & ESP RETROFIT PER MW IN Rs. LAKH/MW		50.98

46. The above estimate as per TCE report was submitted by the Petitioner to the Central Electricity Authority (“CEA”). CEA vide its letter dated 15.4.2019 has recommended the indicative estimated cost of Rs. 0.392 crore/MW which is including the base cost of Rs. 0.37 crore/MW and additional cost of Rs.0.022 crore/MW for piling foundation works for wet limestone based FGD.

47. The recommendations of CEA for FGD system for the Petitioner’s Project (including another thermal power plant of 1320 MW i.e. Project-II of the Petitioner) is as under:

Project-I

Unit # 1 - March, 2015

Unit # 2 - September, 2015

Project-II

Unit # 1 - November, 2016

Unit # 2 - February, 2017

The applicable SO₂ emission limit for SEIL is 200 mg/Nm³ for UNIT-1, 2 of Project-1 and UNIT-1 of Project-2. The SO₂ emission limit for UNIT-2 of Project-2 is 100 mg/Nm³ To take care of variation in operating input parameters such as deterioration in coal quality, higher sulphur content in coal, higher flue gas temperature and flow, higher plant heat rate etc. sufficient design margin needs to be considered on actual performance parameters.

APPLICABLE NORMS FOR THE SEIL

UNIT	Year	SPM	SO ₂	NO _x	Mercury
UNIT-1, 2 of Project-1 and UNIT-1 of Project-2	2003-2016	50mg/Nm ³	200 mg/Nm ³	300mg/Nm ³	0.03mg/Nm ³
UNIT-2 of Project-2	2017 onward	50mg/Nm ³	100 mg/Nm ³	300mg/Nm ³	0.03mg/Nm ³



Technology

In feasibility report SEIL (PROJECT-1&2) has opted for "Wet Lime Stone" based FGD technology. However, following two So₂ removal technologies are technically feasible at SEIL (PROJECT-1&2).

- i. Wet Lime stone Base FGD.
- ii. Sea water based FGD.

In case Wet FGD (Lime stone based) is considered by SEIL (PROJECT-1&2), the reagent source may be selected based on availability of limestone, limestone purity, cost and quality. Additionally Source of limestone should be chosen with life cycle cost analysis.

In case of Sea Water based FGD is considered for this plant. The additional water requirement (if any) for FGD may be taken care off.

SEIL (For PROJECT-1&2) to make lifecycle cost benefit analysis and seeing technical feasibility before opting for either of above mentioned technologies for optimization of CAPEX, OPEX and subsequent implication on tariff.

ENGINEERING ASPECTS (FOR EACH PROJECT)

1. Absorber-Individual absorber for each Unit.
2. Limit SO₂ below environment norms with up to 0.6 % Sulphur content in Coal.
3. **Absorber Lining** - Such as Ceramic Tiles/clad sheet of C-276/Alloy 59 /Steel Alloy/Glass flake filled multi-functional epoxy /glass flake lining etc.
4. **Other lining** - All ducts, effluent handling pits or concrete zone etc. to be protected with glass flake based coating/ Steel Alloy Lining etc. Piping may be of flake glass based coating/carbon steel rubber lined (CSRL)/rubber lining however lesser diameter pipes can be of GRP(Glass Reinforced Plastic)/FRP (Fibre Glass reinforced Plastic)/ Alloy Steel material etc.
5. **Monitoring System**- Measurement of SO₂ in the outlet and inlet are important for the calculation of the FGD efficiency and control the amount of reagent. The important parameters for deciding monitoring system are response time (shorter the better), less inventory (common for inlet and outlet), less maintenance (high maintenance interval). In view of this proven advance technology may accordingly be selected considering the plant specific requirements.
6. **Auxiliary Power Consumption**- The maximum Additional Auxiliary power Consumption (APC) for complete FGD facilities either of Sea water based FGD or Limestone base FGD will be 1.0%.
If the existing chimney is used, the requirement of GGH may be seen. The additional Auxiliary Power Consumption with GGH (only if using old chimney) will be maximum 0.3%.

INDICATIVE COST ESTIMATION

An indicative Base cost estimation is done by CEA in order to facilitate SEIL determine the price for installation of FGD on the major heads of CAPEX & OPEX.

CAPEX (FOR EACH PROJECT)

The indicative estimated cost for Limestone based FGD has been estimated Rs.0.37 Cr/MW (BASE COST) + (0.022 Cr/MW for piling foundation works as proposed by SEIL).

This indicative cost is the "Base Cost" only and does not include Opportunity cost (associated with generation loss due to interconnection of chimneys with absorber) and Taxes-Duties. This Indicative "Base cost is calculated considering new chimney without GGH.



The cost of retrofitting FGD for SEIL should be discovered through open competitive bidding in consultation with lead procurer. The lead procurer (to be invited by SEIL) may participate in bidding process till final award of FGD contract.

NOTE: *In feasibility report SEIL have proposed an additional CAPEX expenditure of 65 Cr for desalination plant for FGD and 10 Cr for corrosion protective painting works of FGD, SEIL is advised to approach regulator at an appropriate stage for these additional plant specific works and associated CAPEX implication on tariff.*

OPEX

Operating Cost (OPEX) will include Reagent cost, Additional water consumption associated with FGD, Manpower cost, Auxiliary Power Consumption, By-product handling and revenue earned through disposal of by product. The OPEX should be kept as low as possible by reducing Auxiliary Power Consumption and producing good quality of saleable by-product.

OPPORTUNITY COST

Since interconnection of chimneys with absorber may result in loss of generation of the plant, hence SEIL is advised to minimize this interconnection time by taking suitable measure so that the "Opportunity cost" associated with interconnection may have least impact on tariff revision.

48. We note that CEA in its report, while recommending the indicative 'base cost' estimate of Rs. 0.392 crore/MW, has suggested that the FGD system installation should be done through the process of open competitive bidding in consultation with representative of the major PSA stakeholders and that the stakeholders may be invited to participate in the bidding process. However, the responsibility for adhering to timelines prescribed by pollution control board is the sole responsibility of the Petitioner.

49. Thus, we recognize that CEA has only recommended the indicative base cost and the generating companies, such as the Petitioner, are required to discover the price through international competitive bidding process. As the price so discovered depends on market conditions, therefore, for satisfying the reasonableness of the cost of installation of FGD system for approving the same, the Commission needs to take into account the recommendations of CEA and the bidding process for discovering the costs.



50. Issue regarding CEA recommended cost has been dealt with by the Commission in the matter of Maithon Power Ltd. in Petition No. 152/MP/2019. Though the tariff in case of Maithon Power Ltd. is determined as per provisions of Section 62 of the Act, while in the instant case, tariff has been determined as per Section 63 of the Act, the principles as regards costs recommended by CEA and the prices discovered in competitive bidding process remain the same. Relevant extract of the Order dated 11.11.2019 is as under:

“21. As regards the estimated expenditure, it is observed that there is difference of Rs.0.32Cr/MW (Rs.0.740-Rs.0.420) between the estimate of CEA and the petitioner. CEA has indicated that its estimates are indicative only and the Petitioner shall go for open competitive bidding. This difference is due to the fact that CEA has not considered cost towards “Fire protection and detection” package, IDC, IEDC and GST @18% considered by the Petitioner and also attributable to difference in cost towards “FGD main package” and “Opportunity cost.”

22. It is observed that for the two packages i.e. “FGD main package” and “Electrical power supply package”, cost discovered through competitive bidding by the Petitioner is Rs.0.438 Crore/MW, which is higher by Rs.0.101 Crore/MW in comparison to CEA cost of Rs.0.337 Crore/MW, including spares. This difference of Rs0.101 Crore/MW gets reduced to Rs.0.058 Crore/MW compared to the revised base cost considered by CEA in its report dated 21.02.2019. CEA, in its report dated 21.02.2019, has increased the base cost of FGD system from Rs. 0.362 crore/MW to Rs.0.405 Crore/MW based on the prices discovered by various thermal plants.

23. Considering the above facts and recognizing that the cost considered by CEA is indicative only and the cost claimed by the Petitioner has been discovered based on open competitive bidding, Commission allows the cost claimed by the Petitioner for the two packages i.e. “FGD main package” and “Electrical power supply package”.

51. Considering the above and recognizing the fact that the cost considered by CEA is indicative only and the cost claimed by the Petitioner would be discovered based on open competitive bidding, the Commission allows the indicative cost of Rs. 0.392 crore/MW recommended by CEA on provisional basis. The Commission also allows, subject to prudence check, the Petitioner to claim expenditure towards IDC, taxes & duties, FERV (if any) and expenditure towards project management & engineering services at actuals after commissioning of the FGD system.

52. In this regard, it is clarified that any compensation granted by the Commission in the instant case would apply only for the capacity that has been contracted by the Respondents i.e. 570 MW , while the FGD system may be required to be installed for the 1320 MW generating station as a whole.

53. With regard to NOx control system, the Petitioner has submitted as under:

“To comply with the new norms of NOx, the estimated cost for SNCR or/and extensive modifications to combustion system, is Rs 0.034 Crore/MW (Rs.45 crore for two units) on account of capital cost and Rs.1.11 lakh/MW on account of operation and raw material cost”

54. Further, the Petitioner in its rejoinder has submitted that the CEA has not approved any indicative cost with regard to NOx control system as the same is subjective i.e. certain projects can achieve the new norms by modifying the combustion control system and some other plants may have to go for SNCR. As such, in absence of such indicative cost, the cost of NOx control system (combustion control/ SNCR) is not being allowed on provisional basis at this stage. In this regard the petitioner is directed to approach CEA for firming up the requirement of SNCR system and its indicative cost for the Petitioner’s plant. In either case, Petitioner should not initiate installation of SNCR system or modification of combustion control system without the specific recommendations of CEA. The cost of such control system and its operating expenses may be allowed based on CEA guidelines and recommendations, if any, and based on prudence check of the details furnished by the Petitioner after installing the equipment on basis of competitive bidding and on incurring the expenditure based on such bidding.

55. Prayers (a) and (b) of the Petitioner are disposed in terms of the above.



Issue No. 4: Whether additional capital cost and operational cost along with other expenses shall be considered on an actual basis for the Change in Law relief in terms of the provisions of the PSA dated 18.2.2016?

56. The Petitioner has claimed that installation of FGD system will also result in additional operating expenses and the impact of higher auxiliary consumption and additional operating expenses will have impact on the Tariff. The Petitioner has also prayed to declare that additional capital cost and operational cost along with other expenses be considered on actual basis for relief on account of Change in Law. The Petitioner has submitted that it ought to be compensated for the increase in both the capital expenditure as well as the operating expenditure since the additional expenditure under both the categories is being incurred as a result of the 2015 Notification by MoEF&CC. Further, there will also be an impact on the operational parameters such as the Auxiliary Power Consumption and the plant of the Petitioner would remain shut down during the period of installation and commissioning of the above equipment.

57. CEA's report dated 15.4.2019 with regard to additional operational expenses is extracted as under:

Operating Cost (OPEX) will include Reagent cost, Additional water consumption associated with FGD, Manpower cost, Auxiliary Power Consumption, By-product handling and revenue earned through disposal of by product. The OPEX should be kept as low as possible by reducing Auxiliary Power Consumption and producing good quality of saleable by-product.

58. The Commission in a similar matter in case of Adani Power Ltd. in order dated 28.3.2018 in petition no 104/MP/2017 has decided that the additional O&M expenses provisionally be considered @2% per annum of the capital cost of FGD system.

Relevant Para is extracted below:

"49. Pending the prescription of norms by CEA, we allow the O&M expenses provisionally at the rate of 2% per annum of the capital cost of FGD, subject to adjustment in the light of the norms to be prescribed by CEA."



59. It is observed from the above that CEA has provided the factors to be considered for additional O&M but has not provided the quantification of the additional O&M in regard to SEIL. Therefore, the claim of the Petitioner for allowing O&M expenditure is provisionally allowed @2% of the capital cost of FGD system at this stage. We direct the Petitioner to submit the O&M expenses relating to FGD system on actual basis at the time of filling the petition for determination of tariff on commissioning of the FGD system.

60. With regard to operational norms, the Commission is yet to specify the norms in respect of systems to be commissioned for meeting Revised Norms. In absence of notified operational norms, Commission allows increased auxiliary consumption of 1% as recommended by CEA in other similar plants subject to revision based on the norms specified by the Commission, if any. This allowed increase in auxiliary consumption by 1% is allowed for the modification in formulae for Availability, Capacity Charge, Energy Charge and PLF on account of increased auxiliary consumption.

61. Regarding opportunity cost, CEA in its report has recommended that since interconnection of chimneys with absorber may result in loss of generation of the Project, the Petitioner should minimize this interconnection time by taking suitable measure so that the "Opportunity cost" associated with interconnection may have least impact on tariff revision. The Petitioner has also been advised to submit the status of progress of all activities of FGD system installation starting from bidding stage till commissioning of FGD to CEA on monthly basis.



62. However, CEA has not specified number of days for which units would have to be shut down for interconnection of FGD system with the chimney. The Commission is of the view that beneficiaries and the Petitioner shall plan the interconnection of FGD system with main plant by synchronizing it with annual overhaul. Therefore, the Commission is not considering the opportunity cost at this stage. However, the same would be considered on actual number of days of shutdown after prudence check to the effect that the Petitioner has tried to synchronize the interconnection of FGD system with annual overhaul and has consulted the beneficiaries (the Respondents) in this respect.

Issue No. 5: What shall be the norms and mechanism for computing the adjustment in tariff corresponding to the additional investment and increase in the operating costs due to the 2015 Notification so as to restore the Petitioner to same economic position as if such Change in Law event has not occurred?

63. The PSA dated 18.2.2016 does not have any specific provision neither does it lay down principles for computing the impact/ relief on account of Change in Law. Relevant Articles 34.3, 34.4 and 34.5 provide as under:

“34.3 Protection of NPV

Pursuant to the provisions of Clauses 34.1 and 34.2 and for the purposes of placing the Supplier in the same financial position as it would have enjoyed had there been no Change in Law affecting the costs, returns or other financial burden or gains, the Parties shall rely on the Financial Model to establish a net present value (the “NPV”) of the net cash flow and make necessary adjustments in costs, revenues, compensation or other relevant parameters, as the case may be, to procure that the NPV of the net cash flow is the same as it would have been if no Change in Law had occurred. For the avoidance of doubt, the Parties expressly agree that for determination of NPV, the discount rate to be used shall be equal to the weighted average rate of interest at which the Supplier has raised the Debt Due under its Financing Agreements.

34.4 Restriction on cash compensation

The Parties acknowledge and agree that the demand for cash compensation under this Article 34 shall be restricted to the effect of Change in Law during the respective Accounting Year and shall be made at any time after commencement of such year, but no later than one year from the close of such Accounting Year. Any demand for cash compensation payable for and in respect of any subsequent Accounting Year shall be made after the commencement of the Accounting Year to which the demand pertains, but no later than 2 (two) years from the close of such Accounting Year.

34.5 No claim in the event of recovery from Buyers



Notwithstanding anything to the contrary contained in this Agreement, the Utility shall not in any manner be liable to reimburse to the Supplier any sums on account of a Change in Law if the same are recoverable from the Buyers

64. It is observed that in case the Supplier suffers an increase in costs or reduction in net after-tax return or other financial burden for and in respect of Contracted Capacity, Article 34.1 of the PSA provides to place the supplier in same financial position as it would have enjoyed had there been no such Change in Law resulting in increased cost, reduction in return or other financial burden. This provision of the PSA kicks in when the aggregate financial effect exceeds the higher of Rs. 1 crore and 0.1% of the Capacity Charge. In such a case, Article 34.1 provides that the supplier may notify the utility and propose an amendment to the PSA. The Article 34.1 then indicates the timelines and processes. In case of disagreement between the supplier and the procurers, this needs to be settled in accordance with the Dispute Settlement Procedure. The provision related to Dispute Settlement Procedure related to adjudication by the Commission is provided in Article 36.4 that reads as under:

“36.4 Adjudication by the Commission

36.4.1 In the event a Dispute is required under the Applicable Laws to be adjudicated upon by the Commission, such Dispute shall, instead of reference to arbitration under Clause 36.3, be submitted for adjudication by the Commission in accordance with Applicable Laws and all references to Dispute Settlement Procedure shall be construed accordingly. For the avoidance of doubt, the Parties hereto agree that the adjudication hereunder shall not be final and binding until an appeal, if any, against such adjudication has been decided by the Appellate tribunal, or no such appeal has been preferred within the time specified in the Applicable Law.

36.4.2 Where any dispute is referred by the Commission to be settled through arbitration, the procedure specified in Clause 36.3 shall be followed to the extent applicable.”

65. Article 34.3 of the PSA provides that for the purposes of placing the Supplier in the same financial position as it would have enjoyed had there been no Change in Law affecting the costs, returns or other financial burden or gains, the Parties shall rely on the Financial Model to establish a net present value (the “NPV”) of the net



cash flow. It also provides that for determination of NPV, the discount rate to be used shall be equal to the weighted average rate of interest at which the Supplier has raised the debt due under its Financing Agreements. Article 34.4 of the PSA provides that the demand for cash compensation shall be restricted to the effect of Change in Law during the respective Accounting Year. Further, Article 34.5 requires that the supplier shall not be liable to reimburse to the Supplier any sums on account of a Change in Law if the same are recoverable from the Buyers.

66. We note that few other similar petitions have been filed by other generating companies in respect of their generating stations wherein tariff has been determined through the tariff based competitive bidding route under Section 63 of the Act. In many such cases, the PPAs have left it for the Commission to decide the compensation for any increase/ decrease in revenues or cost on account of Change in Law during the operation period. However, in the instant case, the PSA provisions only talk about adjudication of disputes by the Commission. However, adjudication of dispute in cases as in the instant Petition involves determination of implication of change in law and the relief that can be provided to the Petitioner. In absence of any such methodology provided in the PSA, the Commission needs to devise a uniform method in line with provisions in PPAs/PSAs.

67. Since the FGD system is required to be installed by all thermal generating stations as per the 2015 Notification, several more such Petitions are likely to be filed by generating companies for determination of compensation on account of Change in Law during operation period. Therefore, it would be appropriate to adopt a uniform compensation mechanism in respect of all such generating stations.



68. Accordingly, the Commission vide order dated 23.4.2020 in Petition No. 446/MP/2019, has directed the staff of the Commission to float a staff paper on the issue of compensation mechanism and tariff implications on account of the 2015 Notification in case of those thermal power plants where the PPA does not have explicit provision for compensation mechanism during the operation period and the PPA requires the Commission to devise such mechanism, inviting comments from all the stakeholders.

69. The Respondents have submitted that the Aggregate Contracted Capacity under the PSA dated 18.02.2016 is 570 MW for a period of 8 years. The Respondents have submitted that the Petitioner has made the present claims of installation of FGD system based on the entire installed capacity of the 660 MW of Unit-2 of the Project whose useful life is 25 years. The Respondents have further submitted that the effect of any Change in Law should be restricted to incremental cost or additional expenditure on installation or up-gradation of the plant and equipment and not for the entire capital expenditure.

70. We understand that in several cases, the useful life of the FGD system, the remaining useful life of the generating station and term of the PPA would not be the same. Further, FGD may be required to be installed for the entire capacity of the generating station, while the PPA or the contracted capacity may be only for a part of the total capacity of the generating station. We have already, in paragraph 52 above, clarified that while the FGD system may be required to be installed for the full capacity of the generating station, the compensation granted by the Commission would apply only for the contracted capacity of the respective Respondent. It is further clarified that while the cost recovery for the FGD system would be spread over



the useful life of the FGD system or the remaining useful life of the generating station, the Respondents shall be liable to pay the compensation as granted by this Commission only for the remaining term of the PPAs.

71. The issue of spread of cost recovery, whether to be spread over the useful life of the FGD system or the remaining useful life of the generating station, would be suitably addressed in the Staff Paper. The staff is directed accordingly.

72. Petition No. 210/MP/2019 is disposed of in terms of the above.

**Sd/-
(I.S. Jha)
Member**

**Sd/-
(P. K. Pujari)
Chairperson**

