

**MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION  
BHOPAL**

**Sub: - Petition under Section 86(1)(b) and (f) of the Electricity Act, 2003 and Article 12.3 of the Power Purchase Agreement dated 05.01.2011 filed on behalf of M/s. Jaiprakash Power Ventures Limited seeking grant of in-principle approval under Regulation 8 of the MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2020 for the expenditure that may be incurred on account of 'Change in Law' events in line with the new environment regulations issued by the Ministry of Environment Forest and Climate Change vide notification dated 7th December' 2015 and 28th June' 2018.**

**Petition No. 16 of 2021**

**ORDER**

**(Hearing through video conferencing)**

**(Date of Hearing: 26<sup>th</sup> October' 2021)**

**(Date of Order: 29<sup>th</sup> November' 2021)**

**M/s. Jaiprakash Power Ventures Limited  
(Unit: Jaypee Nigrie Thermal Power Plant)**

**Petitioner**

**Vs.**

- 1. M.P. Power Management Company Ltd., Jabalpur**  
Shakti Bhawan, Rampur, Jabalpur – 482008 (M.P.)
- 2. M.P. Poorv Kshetra Vidyut Vitran Company Ltd.,**  
Shakti Bhawan, Rampur, Jabalpur, M.P.
- 3. M.P. Madhya Kshetra Vidyut Vitran Company Ltd.**  
Nishtha parisar, Govindpura, Bhopal, M.P.
- 4. M.P. Paschim Kshetra Vidyut Vitran Company Ltd.**  
GPH Compound, Pologround, Indore, M.P.
- 5. Government of Madhya Pradesh**  
Energy Department, VB-2,  
Vallabh Bhawan Annex, Mantralaya, Bhopal.

**Respondents**

Shri Sakya Singh Choudhary, Advocate, Shri Ashok Shukla and Shri Ajeya Kumar Tripathi, appeared on behalf of the Petitioner.

Shri Manoj Dubey, Advocate and Shri Ajasra Gupta appeared on behalf of the Respondent No. 1.

M/s Jaiprakash Power Ventures Ltd. has filed the subject petition under Section 86(1)(b) and Section 86(1)(f) of the Electricity Act, 2003 and Article 12.3 of the Power Purchase Agreement dated 05.01.2011 seeking in-principle approval under Regulation 8 of the MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2020 for the expenditure that may be incurred

on account of Change in Law events in line with the new environment regulations issued by the Ministry of Environment Forest and Climate Change vide notification dated 7<sup>th</sup> December 2015 and 28<sup>th</sup> June 2018. The said Notifications brought modifications in the existing norms related to air emissions including Oxides of Nitrogen (NO<sub>x</sub>), Sulphur Dioxide (SO<sub>2</sub>), Particulate Matter, Mercury, quantum of water use and stack height in Thermal Power Plants.

2. The petitioner is a generating company having established a coal based super critical thermal power station with capacity of 2x660 MW at Nigrie . The Unit No. 1 and 2 of the petitioner's power plant achieved date of commercial operation (COD) on 03.09.2014 and 21.02.2015, respectively.
3. The petitioner entered into long term Power Purchase Agreement (PPA) on 5<sup>th</sup> January' 2011 with the M. P. Power Management Company Ltd., (hereinafter called "MPPMCL" or "Respondent No. 1") for supply of 30% power of the installed capacity of the Project at a regulated tariff determined by the Madhya Pradesh Electricity Regulatory Commission (hereinafter called "Commission or MPERC"). The petitioner has also executed another Power Purchase Agreement on 6<sup>th</sup> September' 2011 with the Government of Madhya Pradesh for supply of 7.5% of the net power generated at variable charges determined by the Commission.
4. Earlier, the petitioner had filed petition No. 33 of 2019 before this Commission seeking in-principle approval for installation of FDG (Flue Gas De-sulphurisation) in its 2X660 MW Jaypee Nigrie super critical thermal power station in compliance to the notification for the new environment norms issued by the Ministry of Environment Forest and Climate Change vide notifications dated 7<sup>th</sup> December 2015 and 28<sup>th</sup> June 2018, as events of Change in Law.
5. Vide order dated 27<sup>th</sup> December' 2019, the aforesaid petition No. 33 of 2019 was disposed of by this Commission with the following observations:
  32. *The Tariff Regulations, 2015 only provide for allowance of Additional Capital Expenditure on account of Change in Law during True up exercise, on the basis of Annual Audited Accounts and expenditures certified by an Auditor and not otherwise. There is no provision in the Tariff Regulations, 2015 to consider "ad-hoc" or "in-principle" approval by the Commission. Further, there is no provision of any in-principle approval of capital cost or additional capitalisation in the Power Purchase Agreement. Therefore, the request of the petitioner for ad-hoc/in principle approval of capital cost is not considered by the Commission at this stage.*
  33. *The Central Commission has already notified CERC (Terms and Condition for Determination of Generation Tariff) Regulations 2019 for the control period 2019-24, wherein adequate provisions dealing the Additional Capitalization on account of Revised*

*Emission Standards have been made. This Commission is also likely to notified Tariff Regulations for the control period 2019-24 shortly in line with the Regulations notified by the Central Commission which may have adequate provisions for the Additional Capitalization on account of Revised Emission Standards. Further, most of the Additional capitalization on account of Revised Emission Norms is likely to be incurred by the petitioner in next control period of FY2019-24 and shall have to be dealt in accordance with the “MPERC (Terms & Conditions for determination of Tariff) Regulations 2019” and any Capital expenditure on account of Revised Emission Standards has to be dealt with accordingly. Therefore, the petitioner shall be at liberty to approach the Commission for approval of additional capitalization on account of revised emission standards in terms of provisions under applicable Tariff Regulations at the appropriate stage based on the actual expenditure incurred duly reconciled with the Annual Audited Accounts.*

6. Subsequently, the Commission issued MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 {RG-26 (IV) of 2020} on 20.02.2020, which were notified on 28.02.2020 in Madhya Pradesh Gazette. Regulation 8 of the aforesaid Regulations, 2020 provides for in-principle approval in specific circumstances. Therefore, the petitioner has filed this petition under Regulation 8 of the MPERC Generation Tariff Regulations, 2020.
7. In the subject petition, the petitioner broadly submitted following:
  - i. *That though, as per Article 12.1.1 of the PPA dated 05.01.2011, ‘Change in Law’ means occurrence of events subsequent to the date seven (7) days prior to the date of execution of the PPA. Further, as per the above said provision, the qualifying elements for a Change in Law event are:*
    - a) *That event claimed as change in law falls within one or more of the parameters enlisted in Article 12.1.1 of the PPA.;*
    - b) *That the said event of change in law occurred subsequent to 7 days prior to the execution of the PPA, i.e. 7 days before 05.01.2011.*
    - c) *That the occurrence of such event resulted in the Developer incurring recurring or non-recurring additional expenditure or income, as the case may be.*
  - ii. *That it is to be noted that as per Article 12.3.2 of the PPA dated 05.01.2011, the Petitioner has duly notified the Respondents of the ‘Change in Law’ event i.e., amendment of the 1986 Rules and the consequently changed environment norms, vide its notice dated 01.05.2019. The Petitioner further states that vide its notice dated 01.05.2019, it duly notified the Respondents as per Article 12.3.3 of the PPA dated 05.01.2011, of the event of Change in Law and the effect of the same on the Project in a way that in complying with the MOEF&CC Notifications, the*

*Petitioner is likely to entail certain costs. Therefore, the Petitioner has diligently informed the Respondents that as per Article 12.1.1 of the PPA dated 05.01.2011, it is a Change in Law event which has a material direct impact on Project cost and tariff, for supply of power to Respondents 2 to 4 through Respondent no. 1.*

- iii. *That as per Article 12.2 of the PPA dated 05.01.2011, the relief for impact of any Change in Law event is to be sought through Monthly Tariff Payment to be decided by the appropriate commission. It is clear from a combined reading of the above said provision of PPA dated 05.01.2011, that the party affected by any Change in Law event is to approach this Hon'ble Commission for appropriate relief.*
- iv. *That the present Notifications modify the 1986 Rules thereby introducing new standards/parameters for TPP under Schedule I of the 1986 rules. The Notifications thus modify existing norms relating to air emissions including particulate matter, SO<sub>2</sub>, NO<sub>x</sub> and Mercury from the TPPs. It also specifies modified limits for water use and waste-water discharge. It is to be noted that the JNSTPP Nigrieis in compliance with the emissions of particulate matter, mercury and water use and waste-water discharge norms, as applicable. With regard to the emissions of Oxides of Nitrogen, it is submitted that in consideration of various pilot studies being carried out to ascertain the impact of emissions of NO<sub>x</sub>, the CEA is yet to issue guidelines for the required norms. With regard to SO<sub>2</sub> emissions, the Notifications stipulate the stack heights after installation of the FGD system.*
- v. *That the stack height post FGD installation under the Notification is as follows:*

<b>Sr. No.</b>	<b>Industry</b>	<b>Parameter</b>	<b>Standards</b>
"33A"	Thermal Power plants with Flue gas Desulphurisation (FGD)	Stack Height/Limit in Meters	<p>Power Generation capacity : 100 MW and above <math>H = 6.902 (QX0.277)^{0.555}</math> Or 100 m minimum</p> <p>Less than 100 MW <math>H = 6.902 (QX0.277)^{0.555}</math> Or 30 m Whichever is more</p> <p><math>Q =</math> Emission rate of SO<sub>2</sub> in kg/hr * <math>H =</math> Physical stack height in meter</p> <p>*total of the all Unit's connected to stack</p> <p>Note: These standards shall apply to coal / lignite based Thermal Power Plants."</p>

- vi. *That the Notifications envisage installation of FGD system as per the new SO<sub>2</sub> emission norms. It is to be noted that SO<sub>2</sub> is generated as result of oxidation of Sulphur present in the coal at combustion zone of boiler. The SO<sub>2</sub> emission levels vary depending upon the Sulphur contents in the coal fired. However, the emission levels of SO<sub>2</sub> of coal from Amelia North Block assigned for Nigrie Thermal Power Plant and Coal procured through e-auction /market is in the range of 1254to 1650 mg/Nm<sup>3</sup>which exceeds the applicable norm of 200mg/Nm<sup>3</sup> under the amended 1986 Rules. Hence, abatement of SO<sub>2</sub> is required as per the Notifications.*
- vii. *That for installation of FGD system having a design adept with the requirement by the JNSTPP Nigrie, a Feasibility Report dated February 2019 was prepared by the Tata Consulting Engineers. This Feasibility Report took into consideration the extent of Sulphur Dioxide absorption required, the flexibility of fuel firing and large volume of fuel gas to be treated. For the same, a wet limestone based FGD, having SO<sub>2</sub> absorption efficiency of 95%, was proposed as the optimum and best suited technology.*
- viii. *That the summary of the most viable technology (Wet Lime based FGD) for abatement of SO<sub>2</sub> as per the Feasibility Report is extracted herein below:*

<b>PROCESS</b>	<i>Wet Type (Limestone to Gypsum)</i>
<b>CONCEPT</b>	<i>Contact with liquid absorbent - Removes SO<sub>2</sub> in Wet phase using wet Absorber - Discharges the liquid waste (Gypsum slurry)</i>
<b>ABSORBANT</b>	<i>Calcium Carbonate(CaCO<sub>3</sub>)</i>
<b>BYPRODUCTS</b>	<i>Gypsum Slurry</i>
<b>MAIN COMPONENTS</b>	<i>- Wet Absorber - Limestone slurry preparation System - Waste-water treatment system - Gypsum handling system - Wet Stack</i>

- ix. *A summary of new regulations on air emission as per the Notification is extracted hereinbelow:*

<b>Sr. No.</b>	<b>Industry</b>	<b>Parameter</b>	<b>Standards</b>
"25	Thermal Power Plant	<b>TPPs (units) installed before 31st December, 2003</b>	
		Particulate Matter	100mg/Nm <sup>3</sup>

		<i>Sulphur Dioxide(SO<sub>2</sub>)</i>	600mg/Nm <sup>3</sup> (Units Smaller than 500MW capacity units ) 200mg/Nm <sup>3</sup> (for units having Capacity of 500MW and above)
		<i>Oxides of Nitrogen(NO<sub>x</sub>)</i>	600mg/Nm <sup>3</sup>
		<i>Mercury ( Hg)</i>	0.03mg/Nm <sup>3</sup> (for units having capacity of 500MW and above)
		<b><i>TPPs (units) installed after 01<sup>st</sup> January, 2004 upto 31<sup>st</sup> December, 2016</i></b>	
		<i>Particulate Matter</i>	50mg/Nm <sup>3</sup>
		<i>Sulphur Dioxide (SO<sub>2</sub>)</i>	600mg/Nm <sup>3</sup> (Units Smaller than 500MW capacity units ) 200mg/Nm <sup>3</sup> (for units having Capacity of 500MW and above)
		<i>Oxides of Nitrogen (NO<sub>x</sub>)</i>	300mg/Nm <sup>3</sup>
		<i>Mercury (Hg)</i>	0.03mg/Nm <sup>3</sup>

- x. That the two (2) units each of 660 MW at Nigrie TPP, Madhya Pradesh were commissioned in September 2014 and February 2015 respectively. Therefore, the applicable air emission norms for this plant are as follows:

<b><i>Year of Commissioning</i></b>	<b><i>Particulate Matter</i></b>	<b><i>Sulphur Dioxide (SO<sub>2</sub>)</i></b>	<b><i>Oxides of Nitrogen (NO<sub>x</sub>)</i></b>	<b><i>Mercury (Hg)</i></b>
2004-2016	50mg/Nm <sup>3</sup>	200 mg/Nm <sup>3</sup> for Units having capacity of 500 MW and above	300mg/Nm <sup>3</sup>	0.03mg/Nm <sup>3</sup>

- xi. That it is submitted that prior to issuance of the MoEF&CC Notification, the Petitioner was compliant with the environmental norms. The same is reflected from the environmental clearance dated 13.07.2012 received by the Petitioner.
- xii. It is submitted that before the date seven days prior to execution of the PPA, was no stipulation of SO<sub>2</sub> being limited to 200 mg/Nm<sup>3</sup> warranting installation of FGD system. As per the MoEF&CC Notification, the Petitioner is now required to keep SO<sub>2</sub> emissions from the unit (stack emission basis) below 200 mg/Nm<sup>3</sup> irrespective of ground level concentration and ambient air quality norms and in order to comply with the said norm, the Petitioner is required to install FGD system for each Unit.

- xiii. That it is submitted that as regards maximum specific water consumption, particulate matter emission and mercury emission, the Petitioner is in compliance with the amended limits.
- xiv. Therefore in order to comply with the revised norms, qualify as Change in Law, the Petitioner will be required to install the FGD System which will result in additional capital cost and certain recurring costs as detailed in the Petition. There will be disruption in power generation in the course of commissioning phase of the FGD System, resulting in decrease in revenue to the Petitioner for which Petitioner needs to be compensated as per Article 12 of the PPA.
- xv. That the MoP, vide its letter dated 30.05.2018, notified the Central Electricity Regulatory Commission (CERC), of the need to develop the appropriate regulatory framework required for such change in the environmental norms. Further, the need to specify the mechanism or enabling guidelines was also recommended for providing regulatory certainty to the TPPs about recovery of additional costs incurred through tariff for meeting the new environmental norms. It was further notified that the Central Government has decided that the MoEF&CC Notifications are of the nature of a 'Change in Law' event.
- xvi. That as per the regulations and the implementation plan by the CEA dated 21.02.2019, the new norms are made applicable on all operating and new TPPs.
- xvii. That the above said installation of FGD for the 2X660 MW Nigrie STPP, is likely to entail the following cost as estimated in the Feasibility Report:

a) Hard Cost of construction as per Feasibility Report dated February 2019 is as follows

<b>Particular</b>	<b>Amount in Rs. Crore</b>
<b>Base Cost (including Taxes &amp; Duties, Contingency, Engineering and Project Management) without IDC &amp; IEDC</b>	774.12
Loss of capacity Charges due to shutdown of Generation for both units for 30 days on account of duct interconnection	153.49
<b>Total cost</b>	<b>927.61</b>
Cost per MW (1320MW Nigrie STPP) without IDC & IEDC	Rs 0.70 Crs/MW

b) The Annual Operating Cost as per the Feasibility Report dated February 2019 is as follows:

<b>Particular</b>	<b>Amount in Rs. Crore</b>
Cost of reagent	19.60
Additional Auxiliary power consumption	45.17
Additional clarified water FGD	4.51
O & M Cost for FGD	14.28
By product Associated costs	-2.90
<b>Total cost</b>	<b>80.66</b>

- xviii. *That the hard cost of construction for implementation is expected to be approximately Rs 927.61 Crores (excluding Interest During Construction & Incidental Expense During Construction i.e IDC & IEDC) and the additional Operation & Maintenance (O&M) expenses will be a sum of Rs 80.66 Crores per annum. The CEA vide letter dated 15.03.2019, on the basis of the Feasibility Report dated February 2019, has issued advisory recommendation report with details of the suggestive technology and indicating the cost for the installation of such FGD. The CEA has estimated the Hard Cost for implementation at Rs 0.37 Per MW (at Rs 488.4 Crs) as the base cost only and does not include opportunity cost related to interconnection of FGD, Taxes & Duties and IDC & IEDC. Additional Operational Expenditure given by CEA are Rs 57.04 Crores per annum. That the CEA has further mentioned in its report that:*
- i) *The cost estimation for FGD project is based on the price of equipment, infrastructure and related services discovered during transparent and open bidding being carried out by Central and State Undertakings.*
  - ii) *An indicative base cost estimation is done by CEA in order to facilitate JNSTPP determine the price for installation of FGD on the major heads of CAPEX and OPEX. The cost estimation given is only indicative in nature.*
  - iii) *The cost of retrofitting FGD for the plant should be discovered through open competitive bidding in consultation with representatives of major PPA stakeholders. The major PPA stakeholders may participate in bidding process (to be invited by JNSTPP) till award of FGD contract.*
- xix. *That the above-mentioned cost estimates are tentative and based on assessment without including all expenses. The actual cost of the FGD will be determined only after implementation of the same in a transparent manner through competitive bidding along with actual IDC & IEDC. The actual cost will be submitted before the Hon'ble Commission for approval on completion of the bidding process, subject to any further escalation in price due to fair and genuine reasons. Nonetheless, in order to secure bankability of the project and to get the necessary funding for commencing work on the project, it is imperative that this Hon'ble Commission may give in-principle approval for the estimated cost of the project.*
- xx. *That it is submitted that the Hon'ble CERC has also acknowledged, declared, and approved the enactment of new Environment norms and Regulation as 'Change in Law' events on multiple occasions and granted relief to various developers on that account. Upon due consideration of the views and concerns submitted by the stakeholders, the Hon'ble CERC was pleased to hold that the enactment of new Environment Rules and Regulation Laws is a 'Change in Law' event and granted appropriate relief vide order dated 20.03.2017 in Petition No. 72/MP/2017. Petitioner craves leave to refer to such decision of CERC at the time of hearing, if necessary.*
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- xxi. *That in Petition No. 77/MP/2016, the Hon'ble CERC extensively examined the impact of new Environment Rules and Regulation on the cost components of thermal power projects and was pleased to hold that the enactment of new Environment Norms amounts to 'Change in Law'. The Hon'ble Commission further held that the relief for the same will be computed on the basis of the quantum of increase in the hard cost and operation and maintenance cost in compliance of the new environment norms. Petitioner craves leave to refer to such decision of CERC at the time of hearing, if necessary.*
- xxii. *That further in Petition bearing no. 133/MP/2016, the Hon'ble CERC has held that MoEF&CC Notification qualify as Change in Law in terms of the PPA dated 07.08.2007, since the MoEF&CC Notification seeks to revise the environmental norms prescribed in the Environment (Protection) Rules, 1986 and has been issued after the cut-off date.*
- xxiii. *It is submitted that the Petitioner around 24.01.2019 had moved a Petition bearing no. 33 of 2019 seeking the following prayers:*
- a. "Acknowledge and approve the promulgation of the new Environment rules and Regulation vide Notifications dated 7th December 2015 and 28th June 2018, as a Change in Law event under Article 12 of the PPA;*
  - b. Allow the Petitioner ad hoc / provisional relief under Article 12.4 of the PPA dated 05.01.2011 for capital cost of Rs. 927.61 Crore (excluding Interest During Construction & Incidental Expense During Construction i.e IDC & IEDC), Variable Cost and Additional Operation & Maintenance Expenses on account of the Change in Law Events, i.e. promulgation of the new environment rules and regulation pending final determination of costs;*
  - c. Allow the Petitioner to approach this Hon'ble Commission subsequently to revise estimates of Capital Expenditure including IDC, IEDC, Pre-operative expenses, Design Engineering & Project Management Cost, O&M expenses and Variable expenses after the competitive bidding process as advised by the CEA; and on completion of the project work;*
  - d. Reimburse the legal and administrative costs incurred by the Petitioner in pursuing the instant Petition; and*
  - e. Pass such other orders that this Hon'ble Commission deems fit in the facts of this case."*
- xxiv. *This Hon'ble Commission vide order dated 27.12.2019 was pleased to hold as under, inter alia:*
- "32. The Tariff Regulations, 2015 only provide for allowance of Additional Capital Expenditure on account of Change in Law during True up exercise, on the basis of Annual Audited Accounts and expenditures certified by an Auditor and not otherwise. There is no provision in the Tariff Regulations, 2015 to consider "ad-hoc" or "in-principle"*
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*approval by the Commission. Further, there is no provision of any in-principle approval of capital cost or additional capitalisation in the Power Purchase Agreement. Therefore, the request of the petitioner for ad-hoc/in principle approval of capital cost is not considered by the Commission at this stage.*

*33. The Central Commission has already notified CERC (Terms and Condition for Determination of Generation Tariff) Regulations 2019 for the control period 2019-24, wherein adequate provisions dealing the Additional Capitalization on account of Revised Emission Standards have been made. This Commission is also likely to notified Tariff Regulations for the control period 2019-24 shortly in line with the Regulations notified by the Central Commission which may have adequate provisions for the Additional Capitalization on account of Revised Emission Standards. Further, most of the Additional capitalization on account of Revised Emission Norms is likely to be incurred by the petitioner in next control period of FY2019-24 and shall have to be dealt in accordance with the “MPERC (Terms & Conditions for determination of Tariff) Regulations 2019” and any Capital expenditure on account of Revised Emission Standards has to be dealt with accordingly. Therefore, the petitioner shall be at liberty to approach the Commission for approval of additional capitalization on account of revised emission standards in terms of provisions under applicable Tariff Regulations at the appropriate stage based on the actual expenditure incurred duly reconciled with the Annual Audited Accounts.*

*With all aforesaid observations and findings, the subject petition is disposed of.”*

*xxv. That thereafter on 20.02.2020, MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 {RG-26 (IV) of 2020} was notified (“2020 Regulations”). Under Regulation 8 of the 2020 Regulations, this Hon’ble Commission has the power to grant in-principle approval in specific circumstances. The relevant regulation is extracted hereinbelow for the sake of convenience:*

*“8. In-principle Approval in Specific circumstances:*

*8.1 The generating company undertaking any additional capitalization on account of change in law events or force majeure conditions may file petition for in-principle approval for incurring such expenditure after prior notice to the beneficiaries or the long term customers, as the case may be, along with underlying assumptions, estimates and justification for such expenditure if the estimated expenditure exceeds 10% of the admitted capital cost of the project or Rs.100 Crore, whichever is lower.”*

xxvi. *That the Petitioner has been writing to the Respondent no. 1 regularly since February, 2020 informing them about the status of the bidding of FGD for JNSTPP, Nigrie. Respondent no. 1 is kept updated about the status of the bid, extension thereof, participants of the pre-bid conference, details of the pre-bid conference, challenges faced due to the coronavirus pandemic, purchasers of the bid documents, and all necessary details.*

xxvii. *At present, no bids have been received till date for JNSTPP, Nigrie, however, the Petitioner has received requests for extension of bid submission dates, from prospective bidders/ OEMs. The Petitioner is also in touch with other OEMs/ bidders (both Indian as well as International) for participating in the bidding for FGD at JNSTPP, Nigrie. In view of the same, the dates have been extended as under:*

*Date for purchase of bid document 20.03.2021*

*Date for submission of bids for FGD 31.03.2021*

xxviii. *It is submitted that till date, no expenditure is incurred on FGD by the Petitioner. However, to make any expenditure towards FGD, Petitioner would have to approach banks, financial institutions, for fundings, loans, etc. It is for this purpose, that the present petition has been necessitated to be filed at this stage.*

xxix. *The Petitioner seeks indulgence of this Hon'ble Commission to grant in-principle approval under Article 12.4 of the PPA for the additional expenditure amounting to INR 927.61Crore (excluding Interest During Construction & Incidental Expense During Construction i.e IDC & IEDC) on account of the enactment of the new Environment norms and Regulation, Variable Cost and Additional Operation & Maintenance Expenses (estimated as per the Feasibility Report) with effect from CoD of FGD to avail necessary financial arrangements on such basis. The Petitioner reserves its right to approach the Hon'ble Commission from time to time with updated figures based on the outcome of the bidding process and finalization of work, to have the actual cost of Change in Law determined by this Hon'ble Commission.*

xxx. *That the present Petition is made bona-fide and in the interest of justice. It is further submitted that the Hon'ble Commission has jurisdiction to adjudicate upon the present Petition and grant the reliefs sought herein as per Section 86 of the Electricity Act, 2003 and specifically in light of Article 12.4 of the PPA.*

8. With the above submission, the petitioner prayed the following:

- i. *Grant in-principle approval to the Petitioner under Regulation 8 of the 2020 Regulations on account of change in law events brought forth by the Notifications issued by MOEF&CC dated 7th December 2015 and 28th June 2018 for the expenditure to be incurred in*

*installation of FGD to bring its plant at Nigrie within the permissible emission standards as prescribed;*

- ii. Allow the Petitioner ad hoc / provisional relief under Article 12.4 of the PPA dated 05.01.2011 for capital cost of Rs. 927.61 Crore (excluding Interest During Construction & Incidental Expense During Construction i.e IDC & IEDC), Variable Cost and Additional Operation & Maintenance Expenses on account of the Change in Law Events, i.e. promulgation of the new environment rules and regulation pending final determination of costs;*
- iii. Allow the Petitioner to approach this Hon'ble Commission subsequently to revise estimates of Capital Expenditure including IDC, IEDC, Pre-operative expenses, Design Engineering & Project Management Cost, O&M expenses and Variable expenses after the competitive bidding process as advised by the CEA; and on completion of the project work;*
- iv. Reimburse the legal and administrative costs incurred by the Petitioner in pursuing the instant Petition; and*

9. At the motion hearing held on 10<sup>th</sup> August' 2021, the petition was admitted. Vide daily order dated 12<sup>th</sup> August' 2021, the petitioner was directed to serve copy of subject petition on the Respondents. The Respondents were directed to file their replies to the subject petition within two weeks. The petitioner was also asked to file rejoinder within one week, thereafter.

10. At the next hearing held on 7<sup>th</sup> September' 2021, Ld. Counsel who appeared for Respondent No. 1 sought further 10 days' time for filing reply to the subject petition.

11. At the hearing held on 26<sup>th</sup> October' 2021, the Commission had observed the following:

- i. By affidavit dated 2<sup>nd</sup> September' 2021, the Respondent No. 1 (MPPMCL) filed reply to the subject petition.*
- ii. By affidavit dated 9<sup>th</sup> October' 2021, the petitioner filed rejoinder to the above reply filed by Respondent No. 1 (MPPMCL).*
- iii. Ld. Counsels who appeared for the parties concluded their arguments.*

12. Having heard the parties, vide daily order dated 28<sup>th</sup> October' 2021, the case was reserved for order with the direction to the petitioner to file indicative impact on tariff due to proposed additional capital expenditure to be incurred in compliance of Govt. of India's notifications regarding revised emission standards, based on the feasibility report of its consultant, within a week.

13. In compliance to the above, by affidavit dated 6<sup>th</sup> November' 2021, the petitioner filed details of the indicative impact on tariff on account of installation of FGD system based on the feasibility report submitted by the consultant M/s Tata Engineering Consulting Services. The petitioner has also filed a copy of Central Electricity Authority (CEA) letter dated 24.02.2021 clarifying that the cost estimate given by it for FGD system was indicative in nature.
14. By affidavit dated 2<sup>nd</sup> September' 2021, the Respondent No. 1 (MPPMCL) filed reply to the subject petition broadly submitted the following:
- i. *That, the Petitioner has filed instant petition under Regulation 8 of the MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 and has claimed relief, inter-alia, for grant of in-principle approval on account of Change-in-Law for the expenditure to be incurred in installation of FGD to bring its plant within the permissible emission standards as prescribed by Notifications dated 7<sup>th</sup> December, 2015 and 28<sup>th</sup> June, 2018 issued by MOEF & CC.*
  - ii. *That, a conjoint reading of the two regulations (Regulation 8 and Regulation 31) of the MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020 would make it clear that Regulation 8 only provides in general for in-principle approval of Additional Capitalization on account of change in law events or force majeure conditions with a ceiling limit of 10% of the estimated expenditure over the Admitted Capital Cost or Rs. 100 crores whichever is lower. In the present petition, the Additional Capitalization claimed by the petitioner is Rs. 927.61 Crores excluding IDC, IEDC, variable cost and Additional O & M, and as such this Additional Capitalization cannot be claimed under Regulation 8. Whereas, the Regulation 31, in particular, provides for additional capitalization on account of revised standards for emission. Regulation 31 requires various additional and specific information, viz., details of proposed technology as specified by the CEA, scope of work, phasing of expenditure, schedule of completion, estimated completion cost including foreign exchange, if any, detailed computation of indicative impact of tariff to the beneficiaries and any other information considered to be relevant by the generating company, to be furnished by the Generating Company while making a proposal for such additional capitalization.*
  - iii. *That, the Petitioner has not only filed instant petition under incorrect provision of law, in as much as the Petition ought to have been filed under Regulation 31 instead of Regulation 8, but has also not furnished the necessary and specific information required under Regulation 31 (2).*

- iv. *That, in such a circumstance, it may not be possible for the answering Respondent beneficiary to offer detailed comments / objections and reasonable assistance to the Hon 'ble Commission in a way to grant the required approval under Regulation 31 (3) after due consideration of the reasonableness of the estimates, financing plan, schedule of completion, interest during construction, use of efficient technology and such other factors as may be considered relevant by the Hon 'ble Commission.*
  - v. *That, the present petition has been filed under incorrect provision of law and in suppression of material facts. Hence, for the present is neither maintainable under Regulation 8 nor under Regulation 31 of the MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 and is therefore prayed that the same may be dismissed and petitioner may be directed to file a petition duly complying the provisions of Regulation 31 of the aforesaid Tariff Regulations.*
15. By affidavit dated 9<sup>th</sup> October' 2021, the petitioner filed rejoinder to the reply filed by the Respondent No. 1 broadly submitted the following.
- i. *A bare reading of the definition of 'Change in Law' as defined under the Generation Tariff Regulations shows that the MoEF&CC Notifications would squarely fall into point (ii) of the definition, i.e., adoption, amendment, modification, repeal or re-enactment of any existing Indian law.*
  - ii. *Vide order dated 18.08.2021 in Prayagraj Power Generation Company Ltd. v. U.P. Power Corporation Ltd. and Ors in Petition No. 1484 of 2019 before the Uttar Pradesh Electricity Regulatory Commission, it was held that:*

*“64. In view of all the above analysis at Para 51 to 63, the Commission is of the considered opinion that, there being no emission norms prescribed for compliance by the Petitioner, 7 days before the Bid dated i.e. 21.02.2009, the MOEF & CC notification dated 07.12.2015 mandating emission norms read with subsequent MOEF & CC Notification dated 28.06.2018 mandating Chimney height, is of the nature “Change in Law”.*  
*(emphasis supplied)*
  - iii. *It is pertinent to point out that the Central Electricity Regulatory Commission in Petition No. 72/MP/2016, and 133/MP/2016 and various other State Commissions have already declared the MoEF&CC Notifications as Change in Law.*
  - iv. *It is in this regard, that the Petitioner has filed the Petition before this Hon 'ble Commission seeking indulgence of this Hon 'ble Commission to declare the MoEF&CC Notifications as Change in Law, based on a combined reading of the MOEF&CC Notifications, the*
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*Generation Tariff Regulations, and the Power Purchase Agreements dated 05.01.2011 and 06.09.2011 entered into between the parties. As a consequential relief, the Petitioner is seeking in-principle approval on account of such Change in Law for the expenditure to be incurred in installation of FGD to bring its plant within the permissible emission standards as prescribed under the MoEF&CC Notifications.*

- v. *It is submitted that Regulation 28 of the Generation Tariff Regulations provides that where capital expenditure in respect of existing generation station is incurred or projected to be incurred beyond the original scope can be admitted by this Hon'ble Commission, subject to prudence check, on account of change in law of any existing law. Thus, the present Petition deserves to be allowed on this ground alone.*
- vi. *It is denied that Regulation 8 provides for in-principle approval of Additional Capitalization on account of change in law events or force majeure conditions with a ceiling limit of 10% of the estimated expenditure over admitted capital cost of Rs 100 Crs whichever is lower as alleged or at all. The interpretation of Respondent No. 1 of Regulation 8 suggests that the estimated expenditure should be capped at 10 % of the admitted capital cost or Rs 100 Crs whichever is lower. According to the Respondent No. 1's interpretation, the maximum amount of capital expenditure that can be allowed under Regulation 8 is Rs 100 Crs or any lower amount if 10% of the admitted capital cost of project is less than Rs 100 Crs. This reading is inconsistent with the plain language of Regulation 8 and is denied. The estimated expenditure of the project is Rs 927.61Crores and the admitted capital cost of the project is Rs 10,772.20 Crores.*
- vii. *The bare reading of Regulation 8 of Generation Tariff Regulation provides that in-principle approval of additional expenditure shall be required where the estimated expenditure either exceeds-*
  - (i) *10% of the admitted capital cost of the project or*
  - (ii) *Rs 100 Crore; whichever is lower among (i) and (ii)*

*It is submitted that in the present case, 10% of the admitted capital cost of the Project is Rs 1,077.22 Crs (i.e. 10% of Rs 10,772.22 Crs). This is higher than Rs 100 Crores. Therefore, in order to fall within the scope of Regulation 8, the estimated capital expenditure has to be more than Rs 100 Crs in the present case. The estimated expenditure of FGD has been indicated at Rs 927.61 Crs, which exceeds the threshold of Rs 100 Crs. Also, the additional expenditure has been caused on account if change in law event and change in law under various Commissions. Therefore, it attracts Regulation 8 and the Petition for in-principle approval is rightly filed under Regulation 8.*

- viii. *In view of the above submissions, the preliminary objections raised by the Respondent No. 1 regarding the filing of the Petition under incorrect provisions of law, is misconceived and without any basis. The Petitioner has rightly proceeded under Regulation 8.*
- ix. *It is denied that there is any suppression of material facts in the present case. It is submitted that, on the basis of detailed report of Tata Consulting Engineers Limited, significant amount of information in relation to the project such as present air emissions and water use scenario of the plant, technology selection for reducing emissions and water use, proposed scheme and impact on existing plant, plan of implementation and schedule, preliminary first order cost estimates, coal analysis, indicative limestone analysis, clarified water analysis, summary sheet for estimation of per unit emissions for SO<sub>2</sub>, retrofit layout plan for FGD system, scheme of Flue Gas.*
- x. *Desulphurization system for SO<sub>2</sub> control, scheme of plant water system and material balance diagram, scheme of FGD waste water treatment system, scheme for limestone handling system, scheme for gypsum handling system, single line diagram electrical system for FGD, control system configuration diagram for FGD, project implementation schedule has already been provided to the beneficiary. The remaining information will get crystallised only when the bid process is over and the project is completed. A specific prayer has also been made in the Petition to revise the estimated capital expenditure after the bidding process and on completion of the project. Therefore after completion of these stages, all required information will anyways be provided to the Hon'ble Commission. Here it would be pertinent to mention that Petitioner has been informing/updating the Respondent No.1/MPPMCL regarding the materialisation/progress of Tender Process on regular basis.*
- xi. *The contents of the preliminary objections filed by the Respondent no. 1 are wrong, misconceived and hence denied. No part thereof is admitted by the Petitioner, unless the same is an extraction of the Regulations and/or part of the record. The contents and submissions of the Petition filed before this Hon'ble Commission are reiterated and relied upon for the purposes of this Rejoinder to the Preliminary Objections. It is denied that the present petition has been filed under incorrect provision of law and in suppression of material facts.*

**Analysis of the petition:**

**Legal Provisions:**

16. The subject petition has been filed by the petitioner for in-principle approval of additional capitalization to be incurred to comply the environmental norms notified by MoEFCC for thermal power stations. Therefore, let us see the provisions of MoEFCC notifications issued in this regard:



- i. In exercise of the powers conferred by Sections 6 and 25 of the Environment (Protection) Act, 1986, MoEFCC vide its Notification No. S.O. 3305(E) dated 7.12.2015 has amended the Environment (Protection) Rules, 1986, introducing revised standards for emission of environmental pollutants to be followed by all existing and under construction thermal power plants (TPPs). As per the MoEFCC Notification dated 7.12.2015, all TPPs were mandatorily required to comply with the revised emission control norms within a period of two years from the date of the MoEFCC Notification. Subsequently, vide notification dated 1.4.2021, the thermal power stations have been categorized in A, B and C category and the deadline for compliance of the revised emission control norms for different categories has been revised to December' 2022 to December' 2025 by the MoEFCC.
- ii. By way of the aforesaid notification dated 07.12.2015, the MoEFCC has specified certain standards to be met by thermal power plants on various parameters such as Water Consumption, Particulate Matter, Sulphur Dioxide (SO<sub>2</sub>), Oxides of Nitrogen (NO<sub>x</sub>) and Mercury (Hg). The norms prescribed by the MoEFCC vide Notification dated 7.12.2015 are as follows:

<i>Sr. No.</i>	<i>Industry</i>	<i>Parameter</i>	<i>Standards</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>5A.</i>	<i>Thermal Power Plant (Water consumption limit)</i>	<i>Water consumption</i>	<p><i>All plants with once Through Cooling (OTC) shall install Cooling Tower (CT) and achieve specific water consumption up to maximum of 3.5 m<sup>3</sup>/MWh within a period of two years from the date of publication of this notification.</i></p> <p><i>All existing CT-based plants reduce specific water consumption up to maximum of 3.5 m<sup>3</sup>/MWh within a period of two years from the date of publication of this notification.</i></p> <p><i>New plants to be installed after 1<sup>st</sup> January, 2017 shall have to meet specific water consumption up to maximum of 2.5 m<sup>3</sup>/MWH and achieve zero waste water discharged</i></p>
<i>25</i>	<i>Thermal Power Plant</i>	<i>TPPs (units) installed before 31<sup>st</sup> December, 2003*</i>	
		<i>Particulate Matter</i>	<i>100mg/Nm<sup>3</sup></i>
		<i>Sulphur Dioxide (SO<sub>2</sub>)</i>	<i>600 mg/Nm<sup>3</sup> (Units Smaller than 500 MW capacity units) 200 mg/Nm<sup>3</sup> (for units having capacity of 500 MW and above)</i>
		<i>Oxides of Nitrogen (NO<sub>x</sub>)</i>	<i>600 mg/Nm<sup>3</sup></i>
		<i>Mercury (HG)</i>	<i>0.03 mg/Nm<sup>3</sup> (for units having capacity of 500 MW and above)</i>

<b>TPPs (units) installed after [1<sup>st</sup> January, 2004], up to 31<sup>st</sup> December, 2016*</b>	
<i>Particulate Matter</i>	<i>50 mg/Nm<sup>3</sup></i>
<i>Sulphur Dioxide (SO<sub>2</sub>)</i>	<i>600 mg/Nm<sup>3</sup> (Units Smaller than 500 MW capacity units) 200 mg/Nm<sup>3</sup> (for units having capacity of 500 MW and above)</i>
<i>Oxide of Nitrogen (NO<sub>x</sub>)</i>	<i>300 mg/Nm<sup>3</sup></i>
<i>Mercury (Hg)</i>	<i>0.03 mg/Nm<sup>3</sup></i>
<b>TPPs (units) to be installed from 1<sup>st</sup> January, 2017**</b>	
<i>Particulate Matter</i>	<i>30mg/Nm<sup>3</sup></i>
<i>Sulphur Dioxide (SO<sub>2</sub>)</i>	<i>100mg/Nm<sup>3</sup></i>
<i>Oxides of Nitrogen (NO<sub>x</sub>)</i>	<i>100mg/Nm<sup>3</sup></i>
<i>Mercury(Hg)</i>	<i>0.03mg/Nm<sup>3</sup></i>

- iii. The water consumption norms for Thermal Power Plants (TPPs) with Once Through Cooling (OTC), existing CT-based TPPs and new TPPs commissioned after 1.1.2017 were specified in the MoEFCC Notification. Further, norms for Particulate Matter, Sulphur Dioxide (SO<sub>2</sub>), Oxides of Nitrogen (NO<sub>x</sub>) and Mercury (Hg) for TPPs commissioned before 31.12.2003; TPPs commissioned after 1.1.2004 and up to 31.12.2016; and TPPs commissioned after 1.1.2017 were also specified. Subsequently, vide Notification G.S.R. 662(E) dated 19.10.2020, the MoEFCC relaxed the norms of NO<sub>x</sub> for TPPs commissioned during the period 1.1.2004 and 31.12.2016 from 300 mg/Nm<sup>3</sup> to 450 mg/Nm<sup>3</sup>.
- iv. Vide Notification No. 243(E) dated 1.4.2021, MoEFCC has extended the time limit, for implementation of the emission control system to comply with the revised emission control system through the Environment (Protection) Amendment Rules, 2021. The said Notification also provides for constitution of task force and environment compensation for operating TPPs beyond the specified timelines. The relevant portion of the Notification dated 1.4.2021 is reproduced as below:
- i. “A task force shall be constituted by Central Pollution Control Board (CPCB) comprising of representative from Ministry of Environment and Forest and Climate Change, Ministry of Power, Central Electricity Authority (CEA) and CPCB to categorise thermal power plants in three categories as specified in the Table-I on the basis of their location to comply with the emission norms within the time limit as specified in column (4) of the Table-I, namely:

<i>Sl. No.</i>	<i>Category</i>	<i>Location/Area</i>	<i>Timelines for Compliance</i>	
			<i>Non retiring units</i>	<i>Retiring units</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>

1	Category A	Within 10 km radius of National Capital Region or cities having million plus population <sup>1</sup> .	Upto 31 <sup>st</sup> Dec. 2022	Upto 31 <sup>st</sup> Dec. 2022
2	Category B	Within 10 km radius of Critically Polluted Areas <sup>2</sup> or Non-attainment cities <sup>2</sup>	Upto 31 <sup>st</sup> Dec. 2023	Upto 31 <sup>st</sup> Dec. 2025
3	Category C	Other than those included in category A and B	Upto 31 <sup>st</sup> Dec. 2024	Upto 31 <sup>st</sup> Dec. 2025

- ii. The thermal power plant declared to retire before the date as specified in column (5) of Table-I shall not be required to meet the specified norms in case such plants submit an undertaking to CPCB and CEA for exemption on ground of retirement of such plant:

Provide that such plants shall be levied environment compensation at the rate of rupees 0.20 per unit electricity generated in case their operation is continued beyond the date as specified in the Undertaking;

- iii. there shall be levied environment compensation on the non-retiring thermal power plant, after the date as specified in column (4) of Table-I, as per the rates specified in the Table-II, namely:-

Table-II

Non-Compliant operation beyond the Timeline	Environmental Compensation (Rs. per unit electricity generated)		
	Category A	Category B	Category C
0-180 days	0.10	0.07	0.05
181-365 days	0.15	0.10	0.075
366 days and beyond	0.20	0.15	0.10.”

17. Some of the relevant provisions under MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020 applicable for the control period FY 2019-20 to FY 2023-24 are as under:

- i. Definition of ‘Change in Law’ under Regulation 3.1(11) of the MPERC Generation Tariff Regulations, 2020 is as follows:

**‘Change In Law’** means occurrence of any of the following events:

- (i) enactment, bringing into effect or promulgation of any new Indian law, or
- (ii) adoption, amendment, modification, repeal or re-enactment of any existing Indian law, or
- (iii) change in interpretation or application of any Indian law by a competent court, Tribunal

*or Indian Governmental Instrumentality which is the final authority under law for such interpretation or application, or*

- (iv) change by any competent statutory authority in any condition or covenant of any consent or clearances or approval or licence available or obtained for the project, or*
- (v) coming into force or change in any bilateral or multilateral agreement/treaty between the Government of India and any other Sovereign Government having implication for the generating station regulated under these Regulations;*

- ii. Regarding the in-principle approval of the additional capitalization under ‘Change in Law’ events or force majeure conditions, Regulation 8 of the aforesaid MPERC Generation Tariff Regulations, 2020 provides as under:

**“8. In-principle Approval in Specific circumstances:**

*8.1 The generating company undertaking any additional capitalization on account of change in law events or force majeure conditions may file petition for in-principle approval for incurring such expenditure after prior notice to the beneficiaries or the long term customers, as the case may be, along with underlying assumptions, estimates and justification for such expenditure if the estimated expenditure exceeds 10% of the admitted capital cost of the project or Rs.100 Crore, whichever is lower.”*

- iii. With regard to Additional Capitalization on account of Revised Emission Standards, Regulation 31 of the aforesaid MPERC Generation Tariff Regulations, 2020 provides as under:

**31. Additional Capitalization on account of Revised Emission Standards:**

*31.1 A generating company requiring to incur additional capital expenditure in the existing generating station for compliance of the revised emission standards shall share its proposal with the beneficiaries and file a petition before Commission for undertaking such additional capitalization.*

*31.2 The proposal under clause above shall contain details of proposed technology as specified by the Central Electricity Authority, scope of the work, phasing of expenditure, schedule of completion, estimated completion cost including foreign exchange component, if any, detailed computation of indicative impact on tariff to the beneficiaries, and any other information considered to be relevant by the generating company.*

*31.3 Where the generating company makes an application for approval of additional capital expenditure on account of implementation of revised emission standards, the Commission may grant approval after due consideration of the reasonableness of the cost estimates,*

*financing plan, schedule of completion, interest during construction, use of efficient technology, and such other factors as may be considered relevant by the Commission.*

31.4 *After completion of the implementation of revised emission standards, the generating company shall file a petition for determination of tariff. Any expenditure incurred or projected to be incurred and admitted by the Commission after prudence check based on reasonableness of the cost and impact on operational parameters shall form the basis of determination of tariff.*

18. The petitioner has sought in-principle approval for additional capitalization to be incurred for installation of flue gas de-sulphuration (FGD) system in compliance to applicability of new environmental norms notified by the MoEFCC in accordance with 'Change in Law' provisions under the Power Purchase Agreements (PPAs) dated 05.01.2011 and 06.09.2011, respectively. Therefore, let us look into the relevant provisions related to 'Change in Law' in the PPA. The provisions under Article 12 of PPA are as under:

i. As per Article 12.1.1 of the PPA dated 05.01.2011, the definition of Change in Law is as follows:

***12.1.1. 'Change in Law' means***

*The occurrence of any of the following events after the date, which is seven (7) days prior to the execution of this PPA, resulting into any additional recurring/non- recurring expenditure by the Company or any income to the Company:*

- i) The enactment, coming into the effect, adoption, promulgation, amendment, modification or repeal (without re-enactment or consolidation) in India, of any Law, including rules and regulations and framed pursuant to such Law; or*
- ii) A change in the interpretation of any Law by any Indian Governmental Instrumentality having the legal power to interpret or apply such Law or any Competent Court of Law; or*
- iii) The imposition of a requirement for obtaining any Consents, Clearances and permits which was not required earlier; or*
- iv) A change in the terms and conditions prescribed for obtaining any Consents, Clearances and Permits or the inclusion of any new terms or conditions for obtaining such Consents, Clearances and Permits; or*
- v) Any change in tax or introduction of any tax made applicable for supply of power by the Company as per the terms of this Agreement*

*But shall not include*

- i) *Any change in any withholding tax on income or dividends distributed to the shareholders of the Company. Or*
- ii) *Change in respect of UI Charges or frequency intervals by an Appropriate Commissions; or*
- iii) *Any change on account of regulatory measures by the Appropriate Commissions including calculation of availability*
- iv) *The direction / direction and orders of the Appropriate commission including the orders passed on the petition seeking approval to this Agreement.*

ii. Articles 12.2 and 12.4.1 of the PPA dated 05.01.2011 deal the relief for impact of any Change in Law event is to be sought through Tariff Payment to be decided by the commission. The relevant provisions are as under:

*12.2 Application and Principles for computing impact of Change in Law*

*While determining the consequence of Change in Law under this Article 12, the Parties shall have due regard to the principle that the purpose of compensating the Party affected by such Change in Law, is to restore through Monthly Tariff Payment, to the extent contemplated in this Article 12, the affected Party to the same economic position as if such Change in Law has not occurred and such impact shall be as decided by the Appropriate Commission.*

...

*Tariff Adjustment Payment on account of Change in Law*

*12.4.1. Subject to provisions mentioned above, the adjustment in Monthly Tariff Payment shall be effective from:*

- i) *The date of adoption, promulgation, amendment, re-enactment or repeal of the Law or Change in Law; or*
- ii) *The date of order/judgement of the Competent Court or tribunal or Indian Governmental Instrumentality, if the Change in Law is on account of a change in interpretation of Law.*

iii. Regarding the Notification of Change in Law, 12.3.1 of the PPA provides as under:

*“If the Company is affected by a Change in Law in accordance with this Article 12 and the Company wishes to claim relief for such a Change in Law under this Article 12, it shall give notice to the procurer of such Change in Law as soon as reasonably practicable after becoming aware of the same or should reasonably have know of the Change in Law.”*

19. Vide letter dated 30.5.2018, the Ministry of Power issued directions to the Central Commission under Section 107 of the Electricity Act, 2003 to consider the additional cost due to installation of

environmental control system as a pass through in tariff and has decided that the said MoEFCC notification dated 07.12.2015 is “Change in Law”.

20. The petitioner has also referred the orders issued by the Central Commission (P. No. 72/MP/2017, P. No. 77/MP/2016 and P. No. 133/MP/2016) in which the CERC has hold that the enactment of new Environment Rules and Regulation Laws is a ‘Change in Law’ event.

#### **Commission’s Observations and Findings:**

21. The Ministry of Environment Forest and Climate Change vide notifications dated 7<sup>th</sup> December 2015 and 28<sup>th</sup> June 2018, issued new environment norms for thermal power stations. The said notifications revised the existing norms related to air emissions including Oxides of Nitrogen (NO<sub>x</sub>), Sulphur Dioxide (SO<sub>2</sub>), Particulate Matter, Mercury, quantum of water use and stack height in Thermal Power Plants. In the aforesaid notifications, separate norms have been provided for TPPs (units) installed before 31st December, 2003, TPPs (units) installed after 1<sup>st</sup> January, 2004 upto 31<sup>st</sup> December, 2016 and TPPs (units) installed after 1<sup>st</sup> January’ 2017.

22. The petitioner has sought in-principle approval of the Commission for additional capital expenditure to be incurred and additional operating cost for thermal power stations on applicability of “Change in Law” provisions under PPA for compliance of the new environmental norms (for installation of FGD systems) notified by MoEFCC vide notification dated 07.12.2015.

23. The petitioner submitted that in view of the new environmental norms as notified by the MoEFCC, its Power Station requires upgradation and which in turn would lead to additional capital expenditure in the plant. In compliance to the Article 12.3.2 of the PPA dated 05.01.2011, vide notice dated 01.05.2019, the petitioner has issued notice to the Respondents of the ‘Change in Law’ event and the effect of the same on the Project cost and O&M cost.

24. The petitioner has submitted the following:

- i. The units of Nigrie TPP were commissioned in September 2014 and February 2015, respectively. Therefore, the applicable air emission norms for this plant are as follows:

<b>Particulate Matter</b>	<b>Sulphur Dioxide (SO<sub>2</sub>)</b>	<b>Oxides of Nitrogen (NO<sub>x</sub>)</b>	<b>Mercury (Hg)</b>
50mg/Nm <sup>3</sup>	200 mg/Nm <sup>3</sup> for Units having capacity of 500 MW and above	300mg/Nm <sup>3</sup>	0.03mg/Nm <sup>3</sup>

- ii. The Nigrie TPP is in compliance with the emissions of particulate matter, mercury and water use and waste-water discharge norms, as applicable. With regard to the emissions of Oxides of Nitrogen, the petitioner submitted that in consideration of various pilot studies being carried out to ascertain the impact of emissions of NO<sub>x</sub>, the CEA is yet to issue guidelines for the required norms. Therefore, the petitioner's power plant is required to install FGD for reduction of SO<sub>2</sub> to the extent of MoEFCC notified norms.
- iii. In accordance to the MoEFCC Notifications, the petitioner envisage installation of FGD system as per the new SO<sub>2</sub> emission norms. The petitioner informed that the emission levels of SO<sub>2</sub> of coal from Amelia North Block assigned for Nigrie Thermal Power Plant and Coal procured through e-auction /market is in the range of 1254 to 1650 mg/Nm<sup>3</sup> which exceeds the applicable norm of 200mg/Nm<sup>3</sup> under the aforesaid notification.
- iv. For installation of FGD system, a Feasibility Report was prepared by the Tata Consulting Engineers in February 2019. This Feasibility Report took into consideration the extent of Sulphur Dioxide absorption required, the flexibility of fuel firing and large volume of fuel gas to be treated. For the same, a wet limestone based FGD, having SO<sub>2</sub> absorption efficiency of 95%, was proposed by the consultant as suitable technology.
- v. The estimated hard cost of the FGD installation for petitioner's Nigrie TPP is Rs 927.61 Crores (excluding IDC & IEDC) and the estimated Operation & Maintenance (O&M) expenses are Rs 80.66 Crores per annum. The CEA vide letter dated 15.03.2019, on the basis of the Feasibility Report dated February 2019 for the petitioner's plant, has issued advisory recommendation report with details of the suggestive technology and indicating the cost for the installation of such FGD. The CEA has estimated the Hard Cost for implementation at Rs 0.37 Per MW (at Rs 488.4 Crs) as the base cost and does not include opportunity cost related to interconnection of FGD, Taxes & Duties and IDC & IEDC. Additional Operational Expenditure given by CEA are Rs 57.04 Crores per annum.
- vi. In the aforesaid letter the CEA has mentioned that the cost estimation for FGD project is based on the price of equipment, infrastructure and related services discovered during transparent and open bidding being carried out by Central and State Undertakings and cost estimation given is only indicative in nature. The CEA further mentioned that the cost of retrofitting FGD for the plant should be discovered through open competitive bidding in consultation with representatives of major PPA stakeholders.
- vii. Vide letter dated 24.02.2021 issued by the Central Electricity Authority clarifying that the cost estimation given for FGD systems was indicative in nature.



**Respondent No. 1 response:**

25. The Respondent No. 1 in its response on the subject petition has submitted that the Regulation 8 of the MPERC Generation Tariff Regulations, 2020 only provides for in-principle approval of Additional Capitalization on account of change in law events or force majeure conditions with a ceiling limit of 10% of the estimated expenditure over the Admitted Capital Cost or Rs. 100 crores whichever is lower. Further, the Regulation 31 provides for additional capitalization on account of revised standards for emission, which requires various additional and specific information, viz., details of proposed technology as specified by the CEA, scope of work, phasing of expenditure, schedule of completion, estimated completion cost including foreign exchange, if any, detailed computation of indicative impact of tariff to the beneficiaries etc. to be furnished by the Generating Company.

26. In view of the above, the Respondent No. 1 contended that the present petition has been filed under incorrect provision of law under Regulation 8, instead of Regulation 31 of the Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for determination of Generation Tariff) Regulations, 2020. The Respondent No. 1 further submitted that petitioner has not furnished the necessary and specific information required under Regulation 31(2) of the Generation Tariff Regulation.

27. In response to the aforesaid issues raised by the Respondent No. 1, the petitioner in its rejoinder has submitted the following:

- i. The MoEF&CC Notifications would fall into point (ii) of the definition of 'Change in Law' under Generation Tariff Regulations, 2020, i.e., adoption, amendment, modification, repeal or re-enactment of any existing Indian law. The petitioner further submitted that the CERC and other SERC's have already declared the MoEF&CC Notifications as Change in Law.
- ii. Regulation 28 of the Generation Tariff Regulations, 2020 provides that the capital expenditure in respect of existing generation station is incurred or projected to be incurred beyond the original scope can be admitted by the Commission, subject to prudence check, on account of change in law of any existing law.
- iii. Regarding the maintainability of the petition, the petitioner submitted that the Regulation 8 provides for in-principle approval of Additional Capitalization on account of change in law events or force majeure conditions with a ceiling limit of 10% of the estimated expenditure over admitted capital cost of Rs 100 Crs whichever is lower. The estimated expenditure of the petitioner's power project is Rs 927.61 Crores which is more than the 10% of the admitted capital cost of the project therefore, the in-principle approval of additional capital expenditure covers under Regulation 8.

- iv. Regarding the specific information required under Regulation 31(2) of the Generation Tariff Regulations, 2020, the petitioner submitted that on the basis of detailed report of Tata Consulting Engineers Limited, most of the relevant information/details in relation to the project (such as present air emissions and water use scenario of the plant, technology selection for reducing emissions, proposed scheme and impact on existing plant, plan of implementation and schedule, preliminary first order cost estimates, coal analysis, indicative limestone analysis, water analysis, summary sheet for estimation of per unit emissions for SO<sub>2</sub>, retrofit layout plan for FGD system, scheme of Flue Gas, Desulphurization system for SO<sub>2</sub> control, scheme of plant water system and material balance diagram, scheme of FGD waste water treatment system, scheme for limestone handling system, scheme for gypsum handling system, single line diagram electrical system for FGD, control system configuration diagram for FGD, project implementation schedule) have already been provided to the beneficiary.
- v. The petitioner by additional affidavit dated 6<sup>th</sup> November' 2021 provided the details of indicative impact of tariff due to proposed additional capital expenditure to meet revised emission standards mentioning that the remaining information will get crystallised only when the bid process is over and the project is completed. On perusal of the aforesaid affidavit, it is observed that while arriving at indicative impact of tariff, the petitioner has considered the capital cost for emission control system as per the feasibility report of the consultant and norms for emission control system specified by the Central Commission. As per the aforesaid submission filed by the petitioner, the fixed cost shall tentatively be increased by 43.25 Crore in FY 2022-23 and Rs. 42.49 Crore in FY 2023-24. As per aforesaid submission, the energy charges shall also be increased by Rs. 0.023 / unit tentatively on operation of emission control system.

28. In view of the above observations and on perusal of the submissions by both the parties, the Commission has noted the following:

- i. In accordance with Article 12.3.2 of the PPA dated 05.01.2011, the petitioner issued notice to the Respondent No. 1 after notification for new environment norms issued by the MoEFCC, for additional capital expenditure to be incurred for compliance the same. On perusal of the definition of "Change in Law" event, it is observed that the MoEFCC Notification dated 07.12.2015 is a Change in Law event within the terms of the PPA between the parties. Further, vide letter dated 30.05.2018 issued by the Ministry of Power, Government of India in exercise of the powers conferred under Section 107 of the Electricity Act, 2003, issued directions to the Central Commission providing that issuance of the MoEFCC Notification dated 07.12.2015 is a

‘Change in Law’ event. Therefore, the compliance to the new environmental norms and capital expenditure to be incurred in this regard shall fall under Change in Law.

- ii. Estimated capital expenditure (Rs. 927.61 Crore) indicated by the petitioner in compliance to the new environment norms is more than the 10 % of the capital cost approved by the Commission (Rs. 10,772.20 Crore) for thermal power plant and which is more than the Rs. 100 Crore as required under the Regulation 8 of the MPERC Generation Tariff Regulations, 2020, for in-principle approval of the additional capital expenditure. Further, the petitioner filed the feasibility report prepared by the consultant which has incorporated most of the details required under Regulation 31. Regarding the indicative tariff, by additional affidavit dated 6<sup>th</sup> November’ 2021, the petitioner has filed detailed calculations for indicative impact on tariff based on the feasibility report submitted by the consultant.
- iii. However, the project is at planning stage and competitive bidding for installation of FGD has to be carried out, therefore, the petitioner has submitted that the balance information shall be filed on completion of the bidding process. Therefore, the contention of the Respondent No. 1 that the subject petition is neither maintainable under Regulation 8 nor under Regulation 31 has no merit.
- iv. The Commission observed that the capital cost estimate for installation of FGD as submitted by the petitioner is based on the feasibility report submitted by the consultant. Further, the CEA had estimated the cost of FGD three years back when there was no compulsion of FGD in the country. Looking to the current situation, the CEA is in the process of reviewing its Guidelines/Advice on FGD cost and Technology.
- v. The petitioner has identified and proposed wet limestone based FGD system for reduction in SO<sub>2</sub> emissions taking into consideration the effectiveness, availability and cost of the Wet Limestone based FGD system. The petitioner has submitted that except SO<sub>2</sub> emission, its power plant is fulfilling other environmental parameters notified by the MoEFCC, therefore, in-principle approval shall be limited only for installation of FGD to meet the SO<sub>2</sub> emission within the prescribed limit.
- vi. In view of aforesaid facts and circumstances, the Commission has not dealt with the capital cost scrutiny as well as other issues like O&M expenses, Auxiliary Consumption, shut down time etc. at this stage since it would be appropriate to deal with these issues while processing the petition for determination of tariff to be filed by the petitioner after installation and commissioning of FGD in light of provisions under MPERC Generation Tariff Regulations 2020 for determination of supplementary tariff.

29. The petitioner is required to file all details and documents related to actual expenditure in terms of the Regulation 31 of the MPERC Generation Tariff Regulations, 2020 with the petition to be filed for determination of tariff after commissioning of FGD system. All relevant details like cost discovered through competitive bidding, copy of work orders to different vendors, loan agreement along with terms and conditions of loan, detailed calculation for actual IDC, Auditor's certificate for actual expenditure, FGD Commission certificate, details of actual SO<sub>2</sub> emission after commission of FGD and updated Asset-cum-Depreciation register incorporating FGD components shall be filed by the petitioner alongwith the aforesaid petition.

30. In view of the observations and findings, the Commission hereby accord "in-principle approval" for installation of FGD in 2x660MW Nigrie thermal power station under provisions of MPERC Generation Tariff Regulations, 2020. The actual hard cost and soft cost including IDC, IEDC, indirect cost, taxes and duties etc. shall be dealt with and examined by the Commission in petition to be filed by the petitioner for determination of tariff after commissioning of FGD on capitalization of aforesaid cost in Annual Audited Accounts, in accordance with the Generation Tariff Regulations, 2020 and its amendment. Accordingly, the petitioner is directed to file an appropriate petition in accordance with the provisions under MPERC Generation Tariff Regulation, 2020 and its amendment for determination of tariff after commissioning and capitalization of FGD system in its Annual Audited Accounts.

With the above observations and findings, the subject petition No. 16 of 2021 is disposed of.

**(Shashi Bhushan Pathak)**  
Member

**(Mukul Dhariwal)**  
Member

**(S.P.S Parihar)**  
Chairman