

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 77/MP/2016

Coram:

Shri P.K. Pujari, Chairperson

Shri A.K. Singhal, Member

Dr. M.K. Iyer, Member

Date of Order: 17th of September, 2018

In the matter of:

Ultra Mega Power Project developed by Coastal Gujarat Power Limited at Mundra

And

In the matter of:

Petition under Article 13 of the Power Purchase Agreement dated 22.4.2007 read with Clause 4.7 of the Competitive Bidding Guidelines and Section 79 of the Electricity Act, 2003

And

In the matter of:

Coastal Gujarat Power Limited
Through its Authorized Representative
Having its registered office at:
C/o/ The Tata Power Company Limited
34, Sant Tuka Ram Road, Carnac Bunder
Mumbai-400021

....Petitioner

Vs.

- 1) The General Manager (Commerce)
Gujarat Urja Vikas Nigam Limited
Sardar Patel Vidyut Bhawan, Race Course
Vadodara-390007
Gujarat
- 2) The Chief Engineer (Power Purchase)
Maharashtra State Electricity Distribution Company Limited
4th Floor, Prakashgad, Plot No. G-9
Bandra (East), Mumbai-400051
Maharashtra
- 3) The Chairman and Managing Director
Ajmer Vidyut Vitran Nigam Limited
Hathi Bhata, City Power House
Ajmer-305001, Rajasthan



- 4) The Chairman and Managing Director
Jaipur Vidyut Vitran Nigam Limited
Vidyut Bhawan, Janpath
Jaipur-302005, Rajasthan
- 5) The Chairman and Managing Director
Jodhpur Vidyut Vitran Nigam Limited
New Power House, Industrial Area
Jodhpur-342003, Rajasthan
- 6) The Chief Engineer
Punjab State Power Corporation Limited
PP&R, Shed T-1, Thermal Design
Patiala-147001
- 7) The Chief Engineer
Uttar Haryana Bijli Vitran Nigam Limited
Vidyut Sadan, Plot No. C-16, Sector-6
Panchkula-134112, Haryana
- 8) Dakshin Haryana Bijli Vitran Nigam Limited
Vidyut Nagar, Vidyut Sadan
Hissar, Haryana-125005

...Respondents

Parties present:

Shri Amit Kapur, Advocate, CGPL
Shri Abhishek Munot, Advocate, CGPL
Shri Kunal Kaul, Advocate, CGPL
Shri Abhay Kumar, CGPL
Shri Bijay Mohanty, CGPL
Ms. Swapna Seshadri, Advocate, PSPCL
Ms. Ranjitha Ramachandran, Advocate, GUVNL, Haryana & Rajasthan Discoms

ORDER

The Petitioner, Coastal Gujarat Power Limited (CGPL), has filed the present petition under Article 13 of the Power Purchase Agreement dated 22.4.2007 between the Petitioner and Respondents read with Clause 4.7 of the Competitive Bidding Guidelines with the following prayers:

“(a) Declare that the MoEFCC Notification dated 7.12.2015 constitutes a Change in Law event in terms of Article 13 of the PPA read with paragraph 4.7 of the Competitive Bidding Guidelines.



(b) Grant in-principle approval to prudently incur any consequential capital cost to comply with MoEFCC Notification dated 7.12.2015, as also on account of change in operational parameters.

(c) Prescribe, devise and apply appropriate norms for computing the adjustment in tariff to offset the additional investment/increase in costs due to MoEFCC Notification for justly restituting the Petitioner to the same economic position as if such Change in Law event had not occurred.

(d) Prescribe any safeguards/ guidelines to be followed in implementation/ carrying out necessary changes for complying with the MoEFCC Notification.

(e) Pass any such other and further reliefs as this Commission deems just and proper in the nature and circumstances of the present case.”

2. The Petitioner which is a subsidiary of Tata Power Company Ltd., has set up a 4000 MW Ultra Mega Power Project at Mundra in the State of Gujarat (Mundra UMPP or the project) based on imported coal after Tata Power Company Ltd. was selected as the successful bidder based on the competitive bidding carried out in accordance with Section 63 of the Electricity Act, 2003 (herein after referred to as the Act). The Petitioner has entered into a PPA dated 22.4.2007 with the distribution companies in the States of Gujarat, Maharashtra, Rajasthan, Punjab and Haryana for supply of 3800 MW from Mundra UMPP for a period of 25 years, namely Gujarat Urja Vikas Nigam Limited, Maharashtra State Electricity Distribution Company Limited, Ajmer Vidyut Vitran Nigam Limited, Jaipur Vidyut Vitran Nigam Limited, Jodhpur Vidyut Vitran Nigam Limited, Punjab State Power Corporation Limited and Haryana Power Generation Corporation Limited (collectively referred to as “Procurers”) who have been arrayed as Respondents in the present petition. The tariff of the Mundra UMPP was adopted by the Central Commission under Section 63 of the Electricity Act, 2003 vide order dated 19.9.2007 in Petition No.18/2007. Mundra UMPP consists of 5 units of 800 MW each and all the Units have achieved commercial operation, the last unit having date of commercial operation as



22.3.2013. The Petitioner has been generating and supplying the contracted capacity to the Procurers in terms of the PPA dated 22.4.2017.

3. On 7.12.2015, Ministry of Environment, Forest and Climate Change Government of India (“MoFFCC) has notified the Environment (Protection) Amendment Rules, 2015 (herein after “MoFFCC Notification”) which mandatorily require all thermal power plants to comply with the revised norms on or before 6.12.2017 i.e. within two years of MoFFCC Notification (the date has since been changed to 2022). The MOFFCC Notification is extracted as under:

“S.O. 3305 (E).- In exercise of powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:-

- 1.(1) These rules may be called Environment (Protection) Amendment Rules, 2015.
- (2) They will come into force from the date of their publication in the Official Gazette.
2. In the Environment (Protection) Rules, 1986, in Schedule-I,
 - (a) after serial number 5 and entries relating to thereto, the following serial number and entries shall be inserted, namely:-

| Sr. No. | Industry | Parameters | Standards |
|---------|---|-------------------|---|
| 1 | 2 | 3 | 4 |
| 5A | Thermal Power Plant (Water consumption limit) | Water Consumption | I. All plants with Once Through Cooling (OTC) shall install Cooling Tower (CT) and achieve specific water consumption upto maximum of 3.5 m ³ /MWh within a period of two years from the date of publication of this notification. II. All existing CT-based plants reduce specific water consumption upto maximum of 3.5 m ³ /MWh within a period of two years from the date of publication of this notification. III. New plants to be installed after 1 st January 2017 shall have to meet specific water consumption upto maximum of 2.5 m ³ /MWh and achieve zero waste water discharged.” |

(b) for serial number 25, and the entries related thereto, the following serial numbers and entries shall be substituted:



| Sr. No. | Industry | Parameters | Standards |
|---------------------------------------|-------------------------|--|---|
| 1 | 2 | 3 | 4 |
| 25 | Thermal Power Plant | TPPs (Units) installed before 31st December, 2003* | |
| | | Particulate Matter | 100 mg/Nm ³ |
| | | Sulphur Dioxide (SO ₂) | 600 mg/Nm ³ (Units smaller than 500 MW capacity units) 200 mg/Nm ³ (for units smaller having capacity of 500 MW and above) |
| | | Oxides of Nitrogen (NO _x) | 600 mg/Nm ³ |
| | | Mercury (Hg) | 0.03 mg/Nm ³ (for Units having capacity of 500 MW and above. |
| | | TPPs (Units) installed after 1st January, 2003 upto 31st December 2016* | |
| | | Particulate Matter | 50 mg/Nm ³ |
| | | Sulphur Dioxide (SO ₂) | 600 mg/Nm ³ (Units smaller than 500 MW capacity units) 200 mg/Nm ³ (for units smaller having capacity of 500 MW and above) |
| | | Oxides of Nitrogen (NO _x) | 300 mg/Nm ³ |
| | | Mercury (Hg) | 0.03 mg/Nm ³ |
| | | TPPs (Units) to be installed from 1st January, 2017** | |
| | | Particulate Matter | 30 mg/Nm ³ |
| | | Sulphur Dioxide (SO ₂) | 100 mg/Nm ³ |
| Oxides of Nitrogen (NO _x) | 100 mg/Nm ³ | | |
| Mercury (Hg) | 0.03 mg/Nm ³ | | |

*TPPs (units) shall meet the limits within two years from the date of publication of this notification.

** Includes all the TPPs (units) which have been accorded environmental clearance and are under construction.

4. The Petitioner has submitted that in order to comply with the revised norms prescribed by MoEFCC Notification dated 7.12.2015, the Petitioner is required to carry out major capital works with regard to change in parameters for emission of particulate matter, introduction of emission norms for Sulphur Dioxide (SO_x), introduction of norms for emission of Oxides of Nitrogen, introduction of norms for emissions of mercury and introduction of installation of cooling tower systems (from Once through Cooling System) and norms on restriction of water consumption. The Petitioner has submitted that the MoEFCC Notification was notified after the Cut-Off



Date [30.11.2006 as per the PPA] and is applicable to all the 'Thermal Power Plants' including those Plants which are commissioned or are at the advanced stage of commissioning. To comply with the revised norms prescribed under the MoEFCC Notification, the Petitioner will have to incur:

- (a) Substantial one time Capital Expenditure of approximately Rs. 11,021 Crore to: (i) set up additional plant, machinery and equipment such as Flue Gas Desulphurization Plant ("FGD"), Selective Catalytic Reduction ("SCR") and Inducted Draft Cooling Towers (IDCT); and (ii) carry out necessary modifications to the existing plant, machinery and equipment.
- (b) Recurring Operational Expenditure on an annual basis (approximately Rs. 1,012 Crore for the first year of full operation i.e. FY 2018-19), towards purchase of raw material, consumables, maintenance etc.
- (c) Adverse financial impact of depressed/lower performance parameters of Mundra UMPP due to such modifications.

5. The Petitioner has submitted that on 19.1.2005, Ministry of Power, Government of India issued "Guidelines for Determination of Tariff by Bidding Process for Procurement of Power by Distribution Licensees" under Section 63 of the Electricity Act ("Competitive Bidding Guidelines"). Pursuant to the Competitive Bidding Guidelines, the Ministry of Power, Government of India finalized Standard Bid Documents ("SBD") in consultation with the concerned stakeholders and issued the SBD on 31.03.2006. The Competitive Bidding Guidelines were amended on 28.02.2006 and 18.08.2006, before the last date of submission of Bid of Mundra



UMPP (i.e. 7.12.2006). Clause 4.7 of the Competitive Bidding Guidelines as it existed before the last date of bidding of Mundra UMPP provided for the following:

"4.7. Any change in law impacting cost or revenue from the business of selling electricity to the procurer with respect to the law applicable on the date which is 7 days before the last date for RFP bid submission shall be adjusted separately. In case of any dispute regarding the impact of any change in law, the decision of the Appropriate Commission shall apply."

6. The Petitioner has further submitted that the Request for Proposal (RFP) for Mundra UMPP was issued by Power Finance Corporation (PFC) as the Bid Process Coordinator on 22.6.2006. As per the RFP, the last date for submission of the bids was 7.12.2006 and as per the PPA, the cut-off date was 30.11.2006 (i.e. 7 days prior to the Bid Deadline of 7.12.2006). The norms for emission of environmental pollutants to be followed by the thermal power plants on or before the cut-off date were provided in Schedule I of the Environment (Protection) Rules, 1986. The Petitioner has submitted that as on cut-off date, the applicable standard for emission of Particulate Matter was 150 mg/Nm³; merely stack height was provided with regard to Sulphur Dioxide; no standard/norms were provided for the emission of Sulphur Dioxide; no standard/ norms were specified for emission of Nitrogen Oxides and Mercury; and there were no norms/restriction qua water consumption and installation of Cooling Tower System. The Petitioner has submitted that Tata Power submitted its bids on or around 7.12.2006. Tata Power premised its bid and quoted its tariff based on the then prevailing law in force, taking into consideration the government policies and applicable laws including the taxes, duties, levies etc. Tata Power was declared as the successful bidder and LOI was issued on 28.12.2006. On 22.4.2007, Tata Power entered into a Share Purchase Agreement with PFC and acquired its 100% in the SPV. Tata Power also entered into PPA with the Procurers on



22.4.2007. The Commission vide its order dated 19.9.2007 adopted the tariff of Mundra UMPP under Section 63 of the Act. Pursuant thereto, the Petitioner executed the Mundra UMPP.

7. The Petitioner has submitted that various environmental approvals were granted to Mundra UMPP as under:

(a) On 21.9.2006, Gujarat Maritime Board ("GMB") issued an in-principle 'No Objection Certificate' in favour of the Petitioner for drawl and using seawater for its Mundra UMPP, on the terms and conditions as stated therein.

(b) On 2.3.2007, Ministry of Environment & Forests ("MoEF") granted Environmental Clearance to the Mundra UMPP subject to implementation of certain terms and conditions stated therein, including the following:

- (i) In case the modelling results showed ground level SO₂ concentration exceeding 80 u.g/m³ at any location in the impact zone, or the Sulphur content in coal ever exceeds 1%, Flue Gas De-Sulpharisation ("FGD") unit shall be installed;
- (ii) Space provision shall be made for FGD unit, if required at a later stage.
- (iii) Ash and Sulphur content in the imported coal to be used in the Project shall not exceed 10% and 1.0% respectively.



- (iv) High efficiency Electrostatic Precipitator (ESP) with efficiency not less than 99.9% shall be installed to ensure that particulate emission does not exceed 100 mg/N m³.
 - (v) Low NO_x burners shall be provided.
 - (vi) Closed Cycle Cooling System with Cooling Tower shall be adopted. The treated effluents shall conform to the prescribed standards before discharge.
- (c) On 5.4.2007, MoEF issued a Corrigendum to the Environment Clearance dated 02.03.2007 obtained by the Petitioner, whereby certain conditions relating to intake and outfall channel were amended (mandated for Once-Through Cooling System).
- (d) On 25.4.2007, MoEF granted its approval to the Petitioner for drawal and disposal of sea water in the Coastal Regulation Zone. The said approval was further amended by MoEF by its letter dated 9.3.2010.
- (e) In terms of the provisions under the Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention of Control of Pollution) Act, 1981 and Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2008, Gujarat Pollution Control Board ("GPCB") issued its 'Consent to Establish' for setting up the Mundra UMPP and 'Consent to Operate' Mundra UMPP, including amendments thereto. The said 'Consent to Establish' and 'Consent to Operate' provided various standards, which the Petitioner was required to comply with.



(f) On 26.4.2011, MoEF issued a Corrigendum amending its Environmental Clearance dated 2.3.2007 and Corrigendum dated 5.4.2007 (amendment to Environmental Clearance dated 2.3.2007).

8. The Petitioner has submitted that after issue of MOEFCC Notification on 7.12.2015 amending/introducing new standards for emission of environmental pollutants by the thermal power plants, the Petitioner issued a Change in Law Notice dated 30.12.2015 to the Respondents/Procurers in accordance with Article 13.3 of the PPA stating that by virtue of the MoEFCC Notification dated 07.12.2015, Change in Law events had taken place in terms of Article 13.1.1 of the PPA and the Petitioner is entitled to be compensated for the increase in costs and is required to be restored/reinstated to the same economic position, as if such Change in Law events had not occurred. In the said notice, the Petitioner also provided tentative impact affecting the Capital Cost (due to installation of additional Plant and Equipment) along with the cost during the Operation Period, for the future. The Petitioner has submitted that on 16.1.2016, GUVNL sent its response to the Petitioner's Change in Law Notice dated 30.12.2015 seeking certain details as under:

(a) Design parameters/design limits norms taken into consideration for the Project, while procuring environmental approval including fuel related parameters (i.e. the type of fuel considered/ approved while procuring Environmental Clearance).

(b) Actual Project parameters vis-a-vis norms which are revised by MoEFCC's Notification.



(c) Alternative methods of complying with the revised parameters with least cost/no cost.

(d) Requirement of Capital Expenditure with reference to such design norms/norms as provided in the Environmental Clearance, including, if same quality and type of coal is used, as provided for in the Environmental Clearance.

9. The Petitioner has submitted that GUVNL also advised the Petitioner to take up the matter with the Ministry of Power and MoEFCC with regard to (i) applicability of revised environmental norms for existing power plants; and (ii) revisiting the restrictions on water consumption and mandatory installation of Cooling Tower. The Petitioner wrote a letter dated 27.1,2016 to MoEFCC forwarding therewith GUVNL's letter dated 16.1.2016 and requested MoEFCC to exempt existing UMPP's based on sea water cooling (including Mundra UMPP) from requirements of limiting water consumption and mandatory installation of Cooling Towers. The Petitioner vide its letter dated 15.2.2016 provided GUVNL the design parameters of Mundra UMPP, with respect to the Environmental Clearance.

10. The Petitioner has submitted that it appointed Tata Consulting Engineers Limited (TCE), an Independent Consultant, for a feasibility report on implementation of the revised standards of environmental pollution. TCE has submitted its Pre-Feasibility report on the cost impact qua the compliance of the MoEFCC Notification on 23.3.2016, a copy of which has been filed as Annexure P-17 to the petition. TCE Report provides for the following:



- (a) Snapshot of the revised emission norms as per the Amendment Rules.
- (b) Present Air Emission Scenario and Water Use Scenario of Mundra UMPP.
- (c) Analysis of technology available, basis of selection of technology to be used for reducing emission and water consumption, description of the proposed schemes and its impact on the modification of Mundra UMPP.
- (d) Estimated Capital Cost [towards Engineering, Procurement and Commissioning of additional plant, machinery and equipment, but excluding Interest During Construction Period ("IDC"), Taxes, Duties, Transportation, Pre-Operative expenditure, start-up fuel and trial run expenditure].
- (e) Estimated Operating Cost [towards purchase of raw material, consumables, maintenance but excluding additional spares and manpower cost for operating and maintaining such additional equipment].
- (f) The impact of above modification of existing equipment and installation of new equipment on operating parameters of Mundra UMPP and Declared Capacity of the Power Station.

11. The Petitioner has submitted that the MoEFCC Notification has revised the (a) emission parameters for Particulate Matter for Thermal Power Plants, as compared to the parameters existing on the Cut-Off Date and as prescribed in the Environmental Clearance granted to the Petitioner; (b) introduced additional parameters/limits for Thermal Power Plants qua (i) emission norms for Sulphur Dioxide, Oxides of Nitrogen and Mercury and (ii) the amount of cooling water to be



used per unit; and (c) directed all Thermal Power Plants with Once-Through Cooling System (OTC) to install Cooling Tower (CT). The Petitioner has submitted that the MoEFCC Notification which has been notified after the cut-off date of Mundra UMPP constitutes a Change in Law event under the PPA and has a substantial impact on the Capital and Operational Costs of the Project including under-recovery/non-recovery on account of changes in operating parameters such as Auxiliary Consumption and Declared Capacity of the Power Station etc. The Petitioner has further submitted that the Petitioner has duly notified the Procurers vide its letter dated 30.12.2015 about the occurrence of Change in Law event (MOEFCC Notification dated 7.12.2015) in terms of Article 13.3 of the PPA.

12. As regards the various revised standards of emission to be complied with pursuant to the MOEFCC Notification, the Petitioner has submitted as under:

(a) Change in parameters for emission of Particulate matter: The Petitioner has submitted that as on the cut-off date, the applicable standard for emission of Particulate Matter was 150 mg/Nm³ as per Sr. No. 25 of Schedule-I of Environment Protection Rules, 1986. However, MoEF, by its Environmental Clearance dated 2.3.2007 for Mundra UMPP directed the Petitioner to install high efficiency Electrostatic Precipitator (ESP) with efficiency not less than 99.9% to ensure that Particulate Matter emission does not exceed 100 mg/N m³. The Petitioner has submitted that the Bid submitted by the Petitioner was premised on the environmental norm prevailing as on the Cut-Off Date and the Project has been designed and constructed in compliance with the aforesaid norms prescribed by the appropriate authorities. However, after the



Cut-Off Date, the MoEFCC Notification, amongst other things, has revised the parameters/norms for emission of Particulate Matter under which the prescribed limit of emission of particulate matter has been reduced from 150 mg/N m³ (prevalent at the time of submission of the Bid) to 50 mg/Nm³ (with respect to Thermal Power Plants installed between 01.01.2003 and 31.12.2016). The Petitioner has submitted that the MoEFCC Notification constitutes a Change in Law event in terms of Article 13 of the PPA read with Clause 4.7 of the Competitive Bidding Guidelines. The Petitioner has further submitted that Particulate Matter in the flue gas mainly originates out of ash and unburnt carbon in coal. Presently, Mundra UMPP has an Electro Static Precipitator installed for each Unit to control the Particulate matter level in flue gas upto 50 mg/Nm³, which meets the revised emission norms in terms of MoEFCC Notification. Therefore, as a result of the MoEFCC Notification, the Petitioner would not be required to carry out any further changes to its Plant and Machinery.

(b) Introduction of emission norms of Sulphur Dioxide (SO_x): The Petitioner has submitted that as on the Cut-Off Date, there was no applicable standard limiting emission of Sulphur Dioxide in flue gases, which was required to be considered/maintained by Tata Power at the time of submission of its Bid. The Thermal Power Plants were merely required to comply with the condition relating to stack height, as provided in Schedule I to the Environment (Protection) Rules, 1986. The Environmental Clearance dated 02.03,2007 provided that if SO₂ concentration is more than 80 u.g/m³ or [0.08] mg/N m³ at any location in the impact zone and/or if Sulphur content of imported coal to



be used in the Project is more than 1%, then the Petitioner shall have to install a FGD unit. Since, SO₂ concentration at the Mundra Project is less than 80 u.g/m³ i.e. 0.08 mg/Nm³ at any location in the impact zone and the Sulphur content in coal is also less than 1%, the Petitioner had not installed FGD unit. However, after the Cut-Off Date, the MoEFCC Notification has prescribed the limit of emission of Sulphur Dioxide upto 200 mg/Nm³ (with respect to Thermal Power Plants installed between 01.01.2003 and 31.12.2016, where the capacity of a Unit is 500 MW and above). The Petitioner has submitted that at present, the actual observed emission level of Sulphur Dioxide for the station is in the range of 721 to 2179 mg/Nm³ (617 to 1866 mg/Nm³ at 6% of O₂) and currently there is no equipment available at Mundra UMPP for abatement of emission of Sulphur Dioxide, which is required to meet the new norms prescribed by MoEFCC. The Petitioner has submitted that its consultant, TCE has, after considering various factors relating to Mundra UMPP, in its Report dated 23.03.2016, recommended that lime stone based wet FGD system should be considered for abatement of Sulphur Dioxide levels. TCE has further provided the details of the proposed scheme for complying with the MoEFCC emission norms for Sulphur Dioxide and its plan of implementation. The Petitioner has proposed an amount of Rs.5012 crores as capital expenditure (including IDC) for FGD exclusive of Taxes, Duties, Transportation, IDC, Trial-run Expenditure, pre-operative expenditure, mandatory spares etc. The Petitioner has considered an operating cost of Rs.301 crore and O&M expenses of Rs.60 crore.



(c) Introduction of norms for emission of Oxides of Nitrogen: The Petitioner has submitted that as on the Cut-Off Date, there were no applicable standard limiting emission of Nitrogen Oxide, which was required to be considered/ maintained by Tata Power at the time of submission of its Bid. However, MoEF, vide its Environment Clearance dated 2.3.2007, required the Petitioner to install low NO_x burners, in order to reduce Nitrogen Oxide emissions. The Petitioner had installed the requisite low NO_x burners, providing a design guarantee of 600 mg/Nm³. The actual emission of Nitrogen Oxide at Mundra UMPP is in the range of 330 to 459 mg/Nm³ at 4% of O₂ (approximately 283 to 393 mg/Nm³ at 6% of O₂) which is well within the design guarantee of NO_x burner. However, the MoEFCC Notification has prescribed a stringent limit of emission of Nitrogen Oxide upto 300 mg/Nm³ (with respect to Thermal Power Plants installed between 1.1.2003 and 31.12.2016). Therefore, Nitrogen Oxide abatement measures are required to be undertaken to meet the MoEFCC norms. The Petitioner has submitted that TCE after making a qualitative comparison of the aforementioned Nitrogen Oxide abatement technologies and after analysing the ground realities vis-a-vis the revised norms has suggested that Selective Catalytic Reduction (SCR) technology be adopted for abating the emission of Nitrogen Oxide at Mundra UMPP. The Petitioner has submitted that the approximate capital investment for installation of SCR is Rs. 3241 crore apart from the Operating Cost of Rs. 490 crore and O&M expenses of Rs. 98 crore.



(d) Introduction of norms for emission of Mercury: The Petitioner has submitted that as on cut-off date, there were no applicable standards qua emission of Mercury. However, after the Cut-Off Date, MoEFCC Notification introduced new norms qua emission of Mercury and prescribed a limit of 0.03 mg/Nm³ (with respect to Thermal Power Plants installed between 1.1.2003 to 31.12.2016). The Petitioner has further submitted that traces of mercury present in the coal are present in flue gas proportionately. Currently, there is no mercury emission control equipment installed at Mundra UMPP. Furthermore, the present coal analysis does not indicate any mercury content and hence, the Petitioner meets the prescribed limit introduced by MoEFCC for Mercury emission. The Petitioner has clarified that the Petitioner will not have to incur any capital and/or operational expenditure on account of change in emission rates of Mercury.

(e) Introduction of installation of Cooling Tower Systems (from Once Through Cooling System) and norms on restriction on water consumption: The Petitioner has submitted that as on cut-off date, there were no applicable standards qua maximum consumption of water for cooling purpose. The Petitioner's Mundra UMPP is a coastal power project, which uses sea water from the Arabian Sea for condenser cooling and for other fresh water requirement. In order to meet the cooling water requirements, the Petitioner has incorporated a Once through Cooling Water System. The specific water requirement of Mundra UMPP per MW is about 0.3 m³/MWhr and intake quantity per MW is 589400 m³/hr which is 148 m³/MWhr. However, after the



Cut-Off Date, MoEFCC Notification dated 7.12.2015 has introduced the norms (with respect to Thermal Power Plants installed between 1.1.2003 and 31.12.2016) that (i) All plants with Once Through Cooling shall install Cooling Towers; and (ii) all plants shall achieve specific water consumption upto maximum of 3.5 m³/MWhr, within a period of two years from date of publication of the said Notification. The Petitioner has submitted that in order to comply with the said MoEFCC Notification, the existing Once Through based condenser cooling system would have to be modified to recirculating type cooling system with IDCT. The proposed recirculating type cooling system is indicated in the Plot Plan for Mundra UMPP which is annexed as Exhibit 1 to TCE's Report dated 23.03.2016. The Petitioner has submitted that in order to comply with the requirement, the Petitioner is expected to approximately incur a capital expenditure of Rs. 2768 crore, Operating Cost of Rs.52 crore and O&M expenses of Rs.11 crore. The Petitioner has submitted that it has taken up the matter with MoEFCC seeking exemption for existing UMPPs based on sea water cooling system from the requirements of installation of Cooling Towers and limiting water consumption upto maximum of 3.5 m³/MWh. However, MoEFCC has not yet responded to the above mentioned request of the Petitioner for exemption for coastal UMPPs from installation of Cooling Towers. The Petitioner has submitted that if its request is accepted, the Petitioner would not be required to undertake implementation of the CTs.

(f) Impact due to additional Auxiliary Consumption: The Petitioner has submitted that in order to comply with the stringent norms prescribed in



MoEFCC Notification, the Petitioner is required to install new equipment and/or modify the existing equipment which require the Additional Auxiliary Consumption of about 116.08 MW for the 5 units of Mundra UMPP. Due to increased auxiliary consumption, the ability of Mundra UMPP to meet its net capacity commitments would get impacted which would need to be recognized. Also, the Petitioner would not be able to recover the energy costs against such increased auxiliary consumption. Accordingly, the Petitioner is also seeking compensation for under recovery of Energy Charges on account of increased Auxiliary Consumption. The Petitioner has submitted that at present, it is getting the full capacity charges by declaring a normative availability of 3040 MW (80% of 3800 MW contracted capacity). On account of increased Auxiliary Consumption pursuant to the implementation of the norms, the availability of Mundra UMPP may be reduced to the extent of additional energy consumption which would result in loss of capacity charges to the extent of such additional Auxiliary Consumption. The Petitioner has requested for setting the threshold for recovery of capacity charges at 2923.92 MW (i.e. 3040 MW-116.08 MW) instead of 80% of 3800 MW to compensate for increase in auxiliary consumption as a consequence of "Change in Law". The Petitioner has sought the compensation for loss of availability as under:

- (i) In case of actual Availability falling short of the Availability of 80%, the compensation for Capacity Charges to be allowed on pro rata basis for the difference in Availability of 80% of 3800 MW and



actual Availability subject to maximum of 116.08 MW of Additional Auxiliary Power Consumption.

- (ii) In case Actual Availability is more than or equal to the Availability of 80%, no compensation is required to be given for Capacity Charges.

13. The Petitioner has submitted that it has approached the Commission at this stage as substantial investment is required to carry out the capital works to meet the revised norms. This would require retrofits and installation of additional equipment for which substantial capital expenditure is required. In addition to the above, there would be substantial impact on the Operation & Maintenance costs, impact on plant efficiency parameters such as Auxiliary Consumption, Unit heat Rate et al. All of these factors would have a bearing on the costs of power generation and the net power output of the generating Units. Given the implications of implementing these changes to meet the revised norms, it is important that there is a certainty of regulatory treatment of these costs and charges. Even more importantly, as stated earlier, in-principle regulatory approval would be critical for arranging funds from the lenders. The present Petition is being filed to seek regulatory certainty qua the treatment of such costs and tariff impact for its recovery. As such, regulatory certainty/in-principle approval of these additional investments is critical to secure finance from financial institutions - else compliance of the MoEFCC Notification would be virtually impossible.

14. The Petitioner has submitted that the costs/expenditure claimed by it are only indicative and based on preliminary studies carried out on behalf of the Petitioner.



However, the actual adjustment of tariff will be based on actual expenditure made subject to prudence check. The Petitioner has submitted that after the in-principle approval is granted, the Petitioner proposes to adopt the process set out below to implement the proposed Capital Expenditure Schemes:-

- (a) A detailed study of the Project will be carried out and a Detailed Project Report ("DPR") would be developed through a qualified technical consultant to finalize optimum scheme in terms of performance, layout, Capital Cost, Operation and Maintenance Expenses, Auxiliary Power Consumption, Safety considerations etc. Such study will also bring out the disposal cost of Gypsum, formed as a by-product in de-sulphurization process, which has not been considered in the O&M Expenses proposed in instant Petition.
- (b) Based on the DPR, detailed technical specifications will be drawn as per prudent engineering practices, applicable code and standards and including Standard Quality Plans of Tata Power.
- (c) The site specific constraints/requirements will also be clearly informed in the specification to the prospective bidders.
- (d) An International Competitive inquiry will be floated to qualified Vendors.
- (e) The offers received will be evaluated as per pre-defined evaluation criteria, as per Standard Operating Procedure of Tata Power.
- (f) After Technical and Commercial evaluation of the bids, the most competitive techno-commercial bid shall be selected for award.



(g) In a parallel process, after the bidder is selected, based on the cost estimates developed on the basis of the DPR, the Petitioner would initiate the process of arranging requisite debt funds for the implementation of the works through interaction with the Lenders/Financial Institutions.

(h) In case of variation in the fund requirements firmed up after the DPR and the initial estimates stated in this Petition, the Petitioner will approach the Commission with the actual costs and final Incremental Tariff after successful completion and commissioning of the works.

15. Notices were issued to the Respondents/Procurers. Replies to the Petition have been filed by Gujarat Urja Vikas Nigam Limited (GUVNL/Respondent No. 1), Punjab State Power Corporation Limited (PSPCL/Respondent No. 6), Rajasthan Utilities (Respondent No.3 to 5), and Haryana Utilities (Respondent No.7 & 8). The Petitioner has filed a consolidated rejoinder to the replies.

16. GUVNL, Rajasthan Utilities, PSPCL and Haryana Utilities in their replies have submitted as under:-

(a) As on the cut-off date, the Petitioner should be deemed to have included in the per unit charge, the rate at which various taxes, levies, charges, duties etc. was payable to the concerned authorities including cost and expenses which would be necessarily to be incurred as per the conditions that are imposed with any approval or permission. The Petitioner is entitled to only the increased rate as a result of any Change in Law subsequent to the cut-off



date and not any part of the base rate or requirements existing on the cut-off date.

- (b) There is no concept of in-principle approval under the PPA. The compensation is payable under Article 13 only after the expenditure has been incurred and therefore, the Petition for in principle approval is premature at this stage. The obligation to comply with the environmental norms is that of the Petitioner and the same is not subject to any approval of the Commission or reimbursement, if any, of costs by the Procurers.
- (c) CGPL is required to submit all relevant consents and clearances such as standards prescribed by the Central Pollution Control Board ("CPCB") and Gujarat Pollution Control Board ("GPCB") under the Air (Prevention and Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974, as on the Cut-Off Date. CGPL should disclose on Affidavit whether it was subjected to such conditions, wholly or partly, by way of other consents or standards. Assuming there is a Change in Law, the relief is limited to the impact which is in addition to the existing obligation. Further, prudence check is to be undertaken for the expenditure claimed.
- (d) The Petitioner is required to produce the data of actual emissions and submissions on each actual emission to various authorities to substantiate the impact of the new norms. To the extent that the emissions are attributable to the increase in capacity of the plant from 4000 to 4150 MW is to the account of the Petitioner and any consequence of such increased emissions cannot be passed on to the Procurers-Respondents.



- (e) Reduction in emission of Sulphur Dioxide which requires installation of FGD cannot be considered as a Change in Law as installation of FGD was envisaged on the cut-off date, in terms of the environmental clearance dated 2.3.2007. If the Petitioner is required to install the FGD subsequently, for any reason, the same cannot be considered as Change in Law.
- (f) The issue of installation of FGD being considered as Change in Law was considered by the Appellate Tribunal in judgement dated 21.1.2013 in Appeal No. 105 of 2011 (M/s JSW Energy Limited Vs. Maharashtra State Electricity Distribution Co. Ltd. and Another). The Environment Clearance granted to M/s JSW had the similar conditions as in Petitioner's Environment Clearance. In the said judgement, the Appellate Tribunal has held that the condition of installation of FGD at a later stage in the Environment Clearance would mean that the generator was aware of the requirement of FGD and there is no "change in law" because of subsequent confirmation on installation of FGD. Similarly, in the present case, the installation of FGD was already envisaged in the Environment Clearance granted to the Petitioner prior to the cut-off date.
- (g) As per CGPL, the Sulphur Dioxide concentration cannot exceed 80 ug/ m³ or 0.08 mg/m³ prior to the MoEFCC Notification, 2015. If the S02 concentration does not exceed 80 ug/m³ or 0.08 mg/m³, then it is not clear how the emission of SO₂ exceeds 200 mg/m³ as prescribed in the MoEFCC Notification.



- (h) The consents and clearances as existing on the cut-off date are required to be considered to determine the limits of the above emission for the Petitioner. If the consents/clearances or standards as existing on the cut-off date already stipulated certain limits which are now confirmed by the Amendment, the same cannot be a Change in Law.
- (i) The installation of cooling towers was envisaged in the Environment Clearance dated 2.3.2007. Similarly the Environment Clearance for other projects provided for installation of cooling towers. Even otherwise, suitable system was to be provided to reduce the water temperature.
- (j) Any loss on account of shut down of power plant cannot be recovered from the Procurers. There is no default on part of the Procurers which has resulted in the shutdown of the Power Station.

17. The Petitioner in its rejoinder dated 17.4.2018 to the replies of Procurers of Gujarat, Haryana, Rajasthan and Punjab has submitted as under:-

- (a) Prior to the Cut-Off Date, MoEFCC had only prescribed emission norms relating to Particulate Matters and no emission norms were prescribed for Sulphur Dioxide, Nitrogen Oxide and Mercury for thermal power plants.
- (b) All RFQ qualified bidders were advised by the Bid Coordinator i.e. PFC to consider/earmark certain amount towards land cost and R&R cost by its email dated 23.10.2006 (before cut-off date), while submitting their Bid. Therefore, it was not possible for any RFQ qualified bidder including Tata Power to



consider/earmark any other expenditure other than what was stated by PFC, at the time of the submission of the Bid.

- (c) In terms of the RFP, the draft environment management plan was to be made available to the bidders 90 days prior to the Bid Deadline date. Further, the Procurers were required to obtain the Environmental Clearance prior to the issuance of the Letter of Intent.
- (d) On 22.4.2007, CGPL entered into a PPA with the Procurers of the States of Gujarat, Maharashtra, Rajasthan, Haryana and Punjab. The PPA also records that it is the obligation of the Procurers to obtain the Environmental Clearance. Further, the said Environmental Clearance was made available to CGPL only on the date of execution of the PPA i.e. the date on which Tata Power took over the control of CGPL.
- (e) In the absence of any emission norms being prescribed for Sulphur Dioxide, Nitrogen Oxide and Mercury prior to the MoEFCC Notification and Environmental Clearance not being made available to Tata Power on/before the Bid Deadline Date, the Petitioner could never envisage any further expenses to be incurred by CGPL by way of the Environmental Clearance being issued by MoEFCC and Notification issued thereafter.
- (f) MoEFCC Notification is a Change in Law event, being an amendment of existing law, after the cut-off date, which requires all the existing thermal power plants to meet the revised emission norms. In order to meet these revised emission norms, CGPL is required to retrofit and install additional



equipment and incur substantial capital expenditure during the operating period, apart from shut down of Mundra UMPP on account of retrofitting of equipment.

- (g) It is important that there is regulatory certainty/clarity qua the treatment of these costs/expenditure and tariff impact for its recovery. More importantly, in-principle regulatory approval would be critical for arranging funds from the lenders. The Commission has sufficient powers under Section 79(l)(b) of the Electricity Act [i.e. the regulatory powers] to grant in-principle approval, as existence of such powers, even in cases covered under Section 63 of the Electricity Act, has been upheld by the Hon'ble Supreme Court in the case of Energy Watchdog v. CERC & Ors. [(2017) 14 SCC 8].
- (h) As regards the filing of necessary consents and clearances, the Petitioner has submitted that no consents or approvals have been accorded in favour of CGPL prior to cut-off date and all such consents were issued after the cut-off date. All consents and clearances have been placed on record.
- (i) Increase in capacity of Mundra UMPP from 4000 MW to 4150 MW has no correlation with the compliance of MoEFCC Notification and its consequential impact on the Procurers. As there is no additional coal consumption, there is no increase in environment pollution by Mundra UMPP. Further, as per the Corrigendum to Environmental Clearance dated 26.4.2011 issued by MoEFCC, there is no correlation between change in generation capacity vis-à-vis environmental measures to be undertaken by CGPL.



(j) As regards the Procurers' contention that installation of FGD is not a Change in Law event, it has been submitted that the Environmental Clearance dated 2.3.2007 provides that in case the modelling results showed ground level SO₂ concentration exceeding 80 µg/m³ at any location in the impact zone, or the Sulphur content in coal ever exceeds 1%, FGD unit would be installed and space provision shall be made for FGD unit, if required at a later stage. There was no requirement to earmark/identify the funds for setting up of FGD system. Since, SO₂ concentration at the Mundra Project was less than 80 µg/m³ at any location in the impact zone and the Sulphur content in coal was also less than 1%, there was no requirement for CGPL to install the FGD. Subsequent to MoEFCC Notification, FGD system would be required to comply with new emission norms. In terms of the Environmental Clearance dated 2.3.2007, CGPL had provided for space provisioning for FGD and to that extent, CGPL is not seeking any compensation on account of extra space required for installation of FGD.

(k) The findings of the Appellate Tribunal in JSW's case were based on the facts of the said case, which are completely different from the facts of CGPL's case. Firstly, CGPL was conceived and set up as a UMPP. As per CGPL's RFP, Procurers were required to obtain the Environmental Clearance prior to the issuances of the Letter of intent, whereas JSW was an independent power plant which was required to obtain all clearances. Secondly, in JSW's case, Environmental Clearance dated 17.5.2007 issued to it had a condition that the developer would keep space for FGD and provide separate funds for



implementation of environmental protection measures, including FGD. The Environmental Clearance dated 17.5.2007 had a condition that study regarding impact of the project on Alphonso mangoes and fisheries would be conducted and cost of study and safeguard measures had to be provided by JSW. Thirdly, JSW ought to have taken into account the capital expenditure which would be required for installing FGD. In case of CGPL, the total expenditures towards environmental protection measures were restricted to Rs. 200 crore, whereas the tentative cost of installation of FGD is approximately Rs. 5013 crore. Lastly, the Commission in Order dated 28.3.2018 in Petition No. 104/MP/2017 in case of Adani Power where facts are similar to the facts in CGPL's case, has held that (i) Change in condition which required installation of FGD after the Cut-Off date is a Change in Law in terms of the provisions of the PPA; and (ii) the Appellate Tribunal's Judgment in JSW's case is not applicable in the facts of Adani Power's case.

- (l) With regard to the Procurers' submission that the Environmental Clearance required CGPL to install low NO_x burners and therefore, the same is not a Change in Law, CGPL has submitted that as on the cut-off date, there were no applicable standards limiting emission of Nitrogen Oxide from a Thermal Power Plant. In terms of Environment Clearance dated 2.3.2007 (issued after the Cut-Off date), CGPL installed the requisite low NO_x burners, providing a design guarantee of 600 mg/N m³. The actual emission of nitrogen Oxide at Mundra UMPP is in the range of 330 to 459 mg/Nm³ at 4% of O₂ (approximately 283 to 393 mg/Nm³ at 6% of O₂) which is well within the design guarantee of NO_x burner and within the norms prescribed by the World



Bank. However, the MoEFCC Notification has prescribed even more stringent limit in emission norms of 300 mg/Nm³ for Nitrogen Oxide (with respect to Thermal Power Plants installed between 1.1.2003 and 31.12.2016). Since, the said norm of 300 mg/Nm³ is even more stringent than the norms set by the World Bank (i.e. 750 mg/Nm³), which CGPL is complying in the absence of any domestic norms governing Nitrogen Oxide emissions, the introduction of new parameters for emission of Nitrogen Oxide amounts to 'Change in Law' in terms of the PPA.

(m) As regards the Procurers' contention that the installation of cooling towers were envisaged in CGPL's Environmental Clearance and therefore, is not a Change in Law, the Petitioner has submitted that as per the MoEFCC Notification dated 22.12.1998 amending the Environmental (Protection) Rules, 1986, the new "thermal power plants using sea water should adopt suitable system to reduce water temperature at the final discharge point so that the resultant rise in the temperature of receiving water does not exceed 7°C over and above the ambient temperature of the receiving water bodies." Gujarat Maritime Board ("GMB") issued an in-principle 'No Objection Certificate' in favour of CGPL for drawl and using seawater for its Mundra UMPP on 21.09.2006. Subsequently, on 2.3.2007, the Environmental Clearance was issued, which provided that "Closed Cycle Cooling System with Cooling Towers shall be adopted. The treated effluents shall conform to prescribed standards before discharge...". Subsequently, the MoEFCC amended the condition of installing Cooling Tower as provided in its earlier Environmental Clearance dated 2.3.2007 to align it with Notification dated



22.11.1998. Accordingly, CGPL created intake and the outfall channel for using sea water and for discharging water in the seas with necessary approvals from MoEFCC, Government of Gujarat and Gujarat Maritime Board. On the basis of the aforesaid provisions, the condition of installation of cooling tower was not applicable to CGPL. However, the MoEFCC Notification mandates CGPL to install cooling tower and accordingly, the same qualifies as Change in Law in terms of the provisions of the PPA.

(n) With regard to Procurers' submission that the loss on account of shutdown cannot be passed on to the consumers in order to comply with the revised emission norms, it has been submitted that CGPL is required to retrofit and install certain equipment, which would also have an adverse impact on CGPL's operational norms and CGPL would also have to shut down its plant at the time of retrofit. CGPL should not be penalized for loss of Capacity Charges due to non-availability of Unit/ Power Station and/ or liable to pay liquidated damages on account of its failure to comply with PPA provision due to such shutdown.

18. During the hearing of the petition, learned counsel for the Petitioner and learned counsel for GUVNL, Haryana Utilities and Rajasthan Utilities reiterated their submissions made in the petition, replies and rejoinders which have been recorded in the Record of Proceedings of 23.4.2018 and are not repeated for the sake of brevity. The Petitioner and the Respondents have filed their written submissions on 4.6.2018 and 13.6.2018 respectively. The Petitioner in its written submission has



summed up its submissions earlier made in the petition, rejoinder and oral submission. The only additional submission is that Ministry of Power (MoP), GoI vide its directions dated 30.5.2018 issued under section 107 of the Act has stated that MoEFCC Notification is in the nature of change in law except in following cases: (i) PPAs of such power plants whose tariff is determined under section 63 of the Act and having a Bid Deadline date on or after 7.12.2015; and (ii) Thermal Power Plants where the requirement of pollution control system was mandated under the Environmental Clearance of the plant or envisaged before MoEFCC Notification. The Petitioner has submitted that since the norms prescribed under the MoEFCC Notification were neither mandated under the Environment Clearance dated 2.3.2007 nor otherwise envisaged before MoEFCC Notification came into effect, the Petitioner is entitled to be compensated for such change in law event by restitution to the same economic position as if the Change in Law event had not occurred. The Respondents in their written submission have broadly reiterated their earlier submissions in their replies except the additional submissions which are briefly noted as under:

- (a) The obligation to comply with the environmental norms is that of the Petitioner and the same is not subject to the approval of the Commission or reimbursement, if any, of the costs by the Respondent Procurers.
- (b) The Petitioner's contention regarding the regulatory power as per the judgement in Energy Watchdog Vs. Central Electricity Regulatory Commission and Others [(2017) 14 SCC 80] is erroneous as in the said case Hon'ble Supreme Court has recognised that the powers of the



Commission are as per the provisions of the Guidelines and the PPA. The Appellate Tribunal in its judgement dated 17.5.2018 in Appeal No. 283 of 2015 (Nabha Power Limited V. Punjab State Power Corporation Limited) has held that PPA is binding and there cannot be any relief *de hors* the PPA.

(c) MoP letter dated 30.5.2018 issued under section 107 of the Act being policy directions may not be per se binding on the Commission. Further, the said policy directions clearly provides that in case the pollution control system was either mandated or otherwise envisaged before the MoEFCC notification, there is no change in law in such cases. Even though the Environment Clearance dated 2.3.2007 did not mandate installation of FGD immediately, it still envisaged installation/retrofitting of FGD subsequently. Therefore, there is no change in law with regard to FGD in accordance with the policy directions of MoP.

(d) As per the Environment Clearance dated 2.3.2007, “space provision shall be made for Flue Gas Desulphurisation (FGD) unit, if required at a later stage”. This condition does not make any such stipulation that installation of FGD was restricted only if SO₂ concentration exceeded 80 u.g/ m³.

(e) The ratio of the judgement of the Appellate Tribunal in JSW case is that when the Environmental Clearance required the provision of space for installation of FGD and further required that separate funds must be allocated for environment measures, then the installation of FGD was already contemplated and subsequent communication is merely a



confirmation of the requirement. Similar is the case of the Petitioner since the Environment Clearance dated 2.3.2007 required earmarking of space for FGD and funds for environmental measures.

- (f) The Commission's decision in case of Adani Power in Petition No.104/MP/2017 is not applicable in the case of the Petitioner since the original Environment Clearance issued to Adani Power Limited provided for FGD and the issue of FGD being already envisaged in the Environment Clearance prior to the MoEFCC Notification was not in issue in Adani case which is an issue in the present case and JSW case.

19. The Petitioner with the leave of the Commission has filed a response on 2.8.2018 to the additional points raised by Rajasthan and Haryana in their written submissions with regard to FGD. The Petitioner has submitted that the submission of the Respondents that the requirement of installation of FGD was envisaged in CGPL's Environment Clearance and therefore, cannot be considered as Change in Law is erroneous for the following reasons:

- (a) Prior to cut-off date, only emission norms of 150 mg/Nm³ for particulate matters and Air Ambient Standards were prescribed by MoEFCC and/or CPCB. No emission norms relating to Sulphur Dioxide, Nitrogen Oxide and Mercury were prescribed. CGPL is required to install FGD as MoEFCC Notification has imposed emission norms of 200 mg/Nm³ of Sulphur Dioxide, applicable to CGPL.



- (b) All RFQ qualified bidders were advised by the Bid Process Coordinator to consider/earmark certain amounts towards land cost and R&R cost by its email dated 23.10.2006 while submitting the bid. The said email did not specify an amount to be considered/ earmarked for FGD.
- (c) CGPL's environmental clearance dated 2.3.2007 which was issued after the cut-off date did not provide for any requirement to earmark/identify the funds for setting of the FGD system. The environmental clearance merely provided that CGPL should keep the space provision for FGD unit if required at the later stage which CGPL has to cater for and CGPL is not seeking any compensation for space required for FGD. If MoEFCC intended CGPL to install FGD, then the same would have been explicitly mentioned in the Corrigendum dated 5.4.2007 to the environmental clearance dated 2.3.2007.
- (d) The requirement for installation of FGD fructified after the cut-off date with the issue of the MoEFCC notification prescribing the stringent emission norms of sulphur dioxide upto 200 mg/Nm³ as applicable in CGPL case.
- (e) The Hon'ble Supreme Court in Energy Watchdog case has held that Change in Law is to be considered when the law has become applicable and not on the basis of the date on which the party affected by such Change in Law ought to have known that such change could occur in future. Therefore, the submission that CGPL ought to have known the requirement of FGD in future is in the teeth of the judgment of the Hon'ble Supreme Court in Energy Watch Dog Case.



Analysis and Decision

20. In the light of the submission of the parties as recorded herein above, the following issues arise for our consideration:

- (a) **Issue No. 1:** Whether MoEFCC Notification qualifies to be considered as an event of Change in Law in terms of the PPA dated 22.4.2007 between the Petitioner and the Procurer-Respondents?
- (b) **Issue No. 2:** If so, whether the requirement of notice as per the provisions of Article 13 of the PPA have been complied with by the Petitioner?
- (c) **Issue No. 3:** Whether the in-principle approval can be granted for implementation of the event covered under Change in Law in terms of the PPA?
- (d) **Issue No. 4:** Whether any guidelines are to be issued for implementation of MoEFCC Notification, 2015?

Issue No. 1: Whether MoEFCC Notification qualifies to be considered as an event of Change in Law in terms of the PPA dated 22.4.2007 between the Petitioner and the Procurer-Respondents?

21. The Petitioner has entered into a PPA dated 22.4.2007 with the Procurers of five States, namely, Gujarat, Maharashtra, Rajasthan, Punjab and Haryana, after Tata Power was selected as a successful bidder to develop the Mundra UMPP based on the competitive bidding carried out by Power Finance Corporation in terms of Section 63 of the Act and Competitive Bidding Guidelines. Article 13 of the PPA which deals with Change in Law is extracted as under:-



"ARTICLE 13: CHANGE IN LAW

13.1 Definitions

In this Article 13, the following terms shall have the following meanings:

13.1.1 "Change in Law" means the occurrence of any of the following events after the date, which is seven (7) days prior to the Bid Deadline:

- (i) the enactment, bringing into effect, adoption, promulgation, amendment, modification or repeal, of any Law or (ii) a change in interpretation of any Law by a Competent Court of law, tribunal or Indian Governmental instrumentality provided such Court of law, tribunal or Indian Governmental Instrumentality is final authority under law for such interpretation or
- (ii) change in any consents, approvals or licenses available or obtained for the Project, otherwise than for default of the Seller, which results in any change in any cost of or revenue from the business of selling electricity by the Seller to the Procurers under the terms of this Agreement, or (iv) any change in the (a) Declared Price of Land for the Project or (b) the cost of implementation of the resettlement and rehabilitation package of the land for the Project mentioned in the RFP or cost of implementing Environmental Management Plan for the Power Station mentioned in the RFP, indicated under the RFP and the PPA;

but shall not include (i) any change in any withholding tax on income or dividends distributed to the shareholders of the Seller; or (li) change in respect of UI Charges or frequency intervals by an Appropriate Commission.

Provided that if Government of India does not extend the income tax holiday for generation projects under Section 80 IA of the Income Tax Act, upto the Scheduled Commercial Operation Date of the Power Station, such non-extension shall be deemed to be a Change in Law.

13.1.2 "Competent Court" means:

The Supreme Court or any High Court, or any tribunal or any similar judicial or quasi-judicial body in India that has jurisdiction to adjudicate upon issues relating to the Project.

22. Law has been defined in the PPA as under:-

"Law" means in relation to this Agreement, all laws including Electricity Laws in force in India and any statute, ordinance, regulation, notification or code, rule, or any interpretation of any of them by an Indian Governmental Instrumentality and having force of law and shall further include all applicable rules, regulations, orders, notifications by an Indian Governmental Instrumentality pursuant to or under any of them and shall include all rules, regulations, decisions and orders of the Appropriate Commission."

As per the above definition, Law means (a) all laws including Electricity Laws in force in India; (b) any statute, ordinance, regulation, notification or code, rule or



their interpretation by an Indian Government Instrumentality which has force of law; (c) includes any statute, applicable rules, regulations, orders and any notifications by an Indian Government Instrumentality pursuant to or under any of them; and (d) all rules, regulations, decisions and orders of Appropriate Commission. Indian Government Instrumentality has been defined as “the GOI, Government of States where the Procurers and Project are located and any ministry or department of or board, agency or other, regulatory or quasi-judicial authority controlled by GOI or Government of States where the Procurers and Project are located and includes the Appropriate Commission.”

23. MoEFCC is a Ministry under Government of India and therefore, is an Indian Government Instrumentality. The Environment (Protection) Rules, 1986 was issued by MoEFCC in exercise of powers conferred under Section 6 and 25 of the Environment (Protection) Act, 1986 which qualify as “law” in terms of the PPA dated 22.4.2007. The norms for emission of environmental pollutants to be complied with by the thermal power plants were prescribed in Schedule I of Environment (Protection) Rules, 1986. Tata Power submitted the bids on or around 7.12.2006 and therefore, it was expected to factor in the prevailing environmental norms while quoting its tariff. Tata Power was selected as the successful bidder and acquired the Petitioner which was an SPV of Power Finance Corporation. MoEFCC issued the Environment Clearance on 2.3.2007 for Mundra UMPP and subsequently issued corrigenda dated 5.4.2007 and 26.4.2011 to the Environment clearance. The Petitioner executed the Mundra UMPP in accordance with the Environmental Clearance issued by MoEFCC and other clearances issued by Gujarat Maritime Board and Gujarat Pollution Control Board which are also Indian Government



Instrumentalities, being the Boards constituted by Government of Gujarat where the Mundra UMPP is located. Therefore, the Petitioner executed Mundra UMPP in accordance with the Environment Clearance issued by MoEFCC and other clearances issued by Gujarat Maritime Board and Gujarat Pollution Control Board and the prevailing environmental norms as per the Environment (Protection) Rules, 1986 and other environment laws. MoEFCC notified the Environment (Protection) Amendment Rules, 2015 on 6.12.2015 amending Schedule I of the Environment (Protection) Rules, 1986 which provided for revised parameters for water consumption, particulate matters, Sulphur Dioxide, Oxides of Nitrogen and Mercury in respect of thermal power plants. The cut-off date of the Mundra UMPP is 30.11.2006 which is seven days prior to the bid deadline of 7.12.2006. Since the MoEFCC Notification which seeks to revise the environmental norms prescribed in the Environment (Protection) Rules, 1986 and has been issued after the cut-off date, the revised environmental norms qualify as events under change in law in terms of the PPA dated 22.4.2007. Mundra UMPP of the Petitioner has five units of 800 MW each and these units achieved their commercial operation on 7.3.2012, 30.7.2012, 27.10.2012, 21.1.2013 and 22.2.2013 respectively. Therefore, the change in law events brought about through the MoEFCC Notification shall also qualify as change in law during the operating period in terms of the PPA dated 22.4.2007.

24. It is further pertinent to mention that Ministry of Power, Government of India in its letter dated 30.5.2018 has issued directions to the Commission under Section 107 of the Act with regard to the implementation of the revised environmental norms as per MoEFCC Notification dated 7.12.2015. The said letter is extracted as under:



Quote

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

Unquote

25. The Central Government in exercise of its power under section 107 of the Act has declared that 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 cases (a) where the Power purchase Agreements of such thermal power plants has 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 the case of the Petitioner, the bid deadline was 7.12.2006 and therefore, the case of the Petitioner does not fall within the first exception. As regards the second exception, at (b) above, Mundra UMPP meets some of the revised environment norms based on the environment approval and in respect of such norms, Change in Law is not admissible. In fact, the Petitioner has not claimed the relief under Change in Law for particular matters and mercury. In respect of other norms, relief for Change in Law is admissible in case of the Petitioner.

26. Next we consider the case of the Petitioner for Change in Law in respect of each of the revised parameters introduced through the MoEFCC Notification of 2015 and the comments/objections of the Procurers thereon. The Petitioner has submitted the following snapshot of Change in Law claims in respect of Mundra UMPP:

| Ser No | Particulars | Parameters as on cut-off Date | Parameters as per EC dated 2.3.2007 | Parameters as per MoEFCC Notification dated 7.12.2015 | Design/Actual Values | Nature of equipment to comply with/meet new parameters |
|--------|------------------------------------|-------------------------------|---|---|--|---|
| 1. | Particulate Matters | 150 mg/Nm ³ | 100 mg/Nm ³ | 50 mg/Nm ³ | Design- 50 mg/Nm ³ Actual-within limity | Plant meets the revised norms |
| 2. | Sulphur Dioxide (SO ₂) | No Standard | Installation of FGD units required if ground level SO ₂ concentration exceeds 80µg/m ³ at any location in the impact zone or sulphur content in coal exceeds 1% | 200 mg/Nm ³ for units having capacity of 500 MW and above) | Actual Emission in the range of 2425 mg/Nm ³ , where imported coal with Sulphur Content of 0.6 to 1% is used. | Installation of lime stone based wet Flue Gas De-sulphurization Plant (FGD). In case, MoEFCC permits Mundra UMPP to operate the plant with once through system, then Sea water FGD to be considered for SO ₂ |



| | | | | | | |
|----|--------------------------------------|-------------|--|---|---|---|
| | | | | | | abatement. |
| 3. | Oxide of Nitrogen (NO _x) | No standard | No Standard | 300 mg/Nm ³ | Design - 600 mg/Nm ³ (365 ppmv) Actual - 476 mg/Nm ³ at 4% of O ₂ which is about 425 mg/NM ³ at 6% | Installation of Selective Catalytic Reduction ("SCR") |
| 4. | Mercury (Hg) | No standard | No Standard | 0.03 mg/Nm ³ | Within limit | Presently within the norms specified in MoEFCC Notification |
| 5 | Water Consumption Limit | No standard | No Standard | 3.5 nWMWh | Actual - 0.3 m ³ /MWh | Installation of Cooling Towers |
| 6. | Installation of Cooling Towers | No standard | Not mentioned in earlier notifications | Cooling Tower to be installed; Parameters pertaining to Cooling Tower operations to be followed | Actual - Once through type cooling system | |

(A) Particulate Matters

27. The Petitioner has submitted that as on the cut-off date, the applicable standard for emission of Particulate Matter was 150 mg/Nm³ as per Sr. No. 25 of Schedule-I of Environment Protection Rules, 1986. However, MoEF, by its Environmental Clearance dated 02.03.2007 for Mundra UMPP directed the Petitioner to install high efficiency Electrostatic Precipitator (ESP) with efficiency not less than 99.9% to ensure that Particulate Matter emission does not exceed 100 mg/Nm³. The Petitioner has submitted that presently, Mundra UMPP has an Electro Static Precipitator installed for each Unit to control the Particulate matter level in flue gas upto 50 mg/Nm³, which meets the revised emission norms in terms of MoEFCC Notification. As a result of the MoEFCC Notification, the Petitioner would not be required to carry out any further changes to its Plant and Machinery and the petitioner has not claimed any relief on this count.



(B) Sulphur Dioxide (SO₂)

28. The Petitioner has submitted that as on the Cut-Off Date, there was no applicable standard limiting emission of Sulphur Dioxide in flue gases, which was required to be considered/maintained by Tata Power at the time of submission of its Bid. The Thermal Power Plants were merely required to comply with the condition relating to stack height, as provided in Schedule I to the Environment (Protection) Rules, 1986. The Environmental Clearance dated 02.03.2007 provided that if SO₂ concentration is more than 80 u.g/ m³ or [0.08] mg/N m³ at any location in the impact zone and/or if Sulphur content of imported coal to be used in the Project is more than 1%, then the Petitioner would be required to install a FGD unit. Since, SO₂ concentration at the Mundra Project was less than 80 u.g/ m³ i.e. 0.08 mg/N m³ at any location in the impact zone and the Sulphur content in coal was also less than 1%, the Petitioner had not installed FGD unit. However, after the Cut-Off Date, the MoEFCC Notification has prescribed the limit of emission of Sulphur Dioxide upto 200 mg/Nm³ (with respect to Thermal Power Plants installed between 01.01.2003 and 31.12.2016, where the capacity of a Unit is 500 MW and above). The Petitioner has submitted that at present, the actual observed emission level of Sulphur Dioxide for the station is in the range of 721 to 2179 mg/N m³ (617 to 1866 mg/N m³ at 6% O₂) and currently there is no equipment available at Mundra UMPP for abatement of emission of Sulphur Dioxide, which is required to meet the new norms prescribed by MoEFCC. The Petitioner has submitted that its consultant, TCE has, after considering various factors relating to Mundra UMPP, in its Report dated



23.03.2016, recommended that lime stone based wet FGD system should be considered for abatement of Sulphur Dioxide levels.

29. The Respondents have submitted that reduction in emission of Sulphur Dioxide which requires installation of FGD cannot be considered as a Change in Law as installation of FGD was envisaged on the cut-off date, in terms of the environmental clearance dated 2.3.2007 as the Petitioner was required to install the FGD subsequently. The Respondents have further submitted that the issue of installation of FGD being covered under Change in Law was considered by the Appellate Tribunal in judgement dated 21.1.2013 in Appeal No. 105 of 2011 (M/s JSW Energy Limited Vs. Maharashtra State Electricity Distribution Co. Ltd. and Another in which the Appellate Tribunal has held that the condition of installation of FGD at a later stage in the Environment Clearance would mean that the generator was aware of the requirement of FGD and there is no "change in law" because of subsequent confirmation on installation of FGD. The Environment Clearance granted to M/s JSW had the similar conditions as in Petitioner's Environment Clearance. The Respondents have further distinguished the case of the Petitioner from that of Adani Power Limited where the Commission allowed FGD under Change in Law. The Petitioner has refuted the contention of the Respondents on the ground that no emission norms for sulphur dioxide were prescribed before the cut-off date and therefore, MoEFCC Notification imposing the norms of 200 mg/N m³ of Sulphur Dioxide is a Change in Law event. The Petitioner has submitted that the environmental clearance dated 2.3.2007 which was issued after the cut-off date did not provide for any requirement to earmark/identify funds for setting up of FGD system and only provided for arrangement of space for FGD which has been



complied with by the Petitioner. According to the Petitioner, the requirement for installation of FGD fructified only after issue of MoEFCC Notification prescribing stringent environmental norms and therefore, it qualifies for change in law.

30. We have considered the submissions of the Petitioner and Respondents. The Petitioner was selected for execution of the Mundra UMPP through a Case 2 competitive bidding. Clause 1.4(iii) of the RFP provides as under:

“1.4 The Procurers through the Authorised Representative, have initiated development of the Project at Mundra, District Kutch, Gujarat and shall complete the following tasks in this regard by such time as specified hereunder:

XX

- iii. Obtain necessary environmental, coastal regulation zone and forest clearances for the Power Station, prior to the issue of the Letter of Intent. The draft environment management plan will be made available at least ninety (90) days prior to Bid Deadline. These clearances are being obtained in relation to a project of gross capacity of 4000 MW employing Supercritical Technology;”

As per the above provisions in the RFP, the Procurers through their authorised representative are required to obtain the necessary environmental clearance, coastal zone clearance and forest clearance for the power station prior to the issue of the Letter of Intent. It further provides that the draft environment management plan would be made available at least 90 days prior to the Bid Deadline. The purpose of providing the draft environment management plan would be made available at least 90 days prior to the Bid Deadline is to make the bidders aware of the environmental requirements and make provision for the cost of their implementation in the quoted tariff in the bid. Recital B of the PPA dated 22.4.2007 notes the status of clearances as under:



“B. The Procurers, through their Authorised Representative, have completed the initial studies as contained in Project Report; and obtained Initial Consents required for the Project which are set out in Part 1 of Schedule 2 and have been made available to the Seller on date of execution of this Agreement, except Forest Clearance for the Power Station and Coastal Regulation Zone Clearance. These clearances are being expedited and are expected shortly.”

Part 1 of Schedule 2 of the PPA is extracted as under:

“2. SCHEDULE 2: INITIAL CONSENTS

PART 1

- i. Necessary environmental and forest clearances for the Power Station
- ii. Coastal regulation zone clearance”

It is therefore clear from the above that the environment clearance for Mundra UMPP was obtained by procurers on 2.3.2007 and was made available to the successful bidder on 22.4.2007. Moreover, all RFQ qualified bidders were advised by PFC (Bid Coordinator) to consider/earmark certain amount towards land cost and R&R cost while submitting the bids by its e-mail dated 23.10.2006 and the said e-mail did not specify any amount to be considered/earmarked for FGD. Further, the Environment Clearance dated 2.3.2007 contained the following provisions with regard to FGD:

“3. The proposal has been considered in accordance with para 12 of the EIA Notification dated 14th September, 2006 read with sub clause (i) (a) of clausd.2.1 of the Circular no. J-11013/41/2006-IA.II (I) dated 13th October, 2006 and environmental clearance, is hereby accorded under the provisions there of subject to implementation of the following terms and conditions:

- (i) Comprehensive EIA study shall be carried out based on full one year data and submitted to MoEF within 15 months. Based on the same, air quality modeling shall be carried out. In case the modeling results show ground (level SQ2 concentration exceeding 80 ug/m3 at any location in the impact zone or the sulphur content in coal is to ever exceed 1%, FGD shall be installed.
- (ii) Space provision shall be made for Flue Gas De-sulphurisation (FGD) unit, if required at a later stage.



(xxx) Separate funds shall be allocated for implementation of environmental protection measures along with item wise breakup. This cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purpose and year wise expenditure should be reported to this Ministry and its regional office.”

The Environmental Clearance (EC) has been issued in accordance with the EIA Notification dated 14.9.2006. The EC did not require installation of FGD at the stage of the approval. It provided that comprehensive EIA study shall be carried out with one full year data and submitted to MOEFCC. Based on the data, air modelling was to be carried out and in case the modeling results show ground (level SO₂ concentration exceeding 80 ug/m³ at any location in the impact zone or the sulphur content in coal is to ever exceed 1%, FGD was to be installed. The Petitioner has submitted that since SO₂ concentration at the Mundra Project was less than 80 u.g/ m³ i.e. 0.08 mg/N m³ at any location in the impact zone and the Sulphur content in coal was also less than 1%, the Petitioner had not installed FGD unit. The Petitioner has submitted that the emission norms prescribed in the MoEFCC Notification deals with stack emission i.e. emission from the chimney of the power plant released by Mundra UMPP whereas the standard prescribed in the EC related to ambient air quality which relate to the atmospheric air which people in the vicinity breathe in and consequently impact their health. The Environment Clearance dated 2.3.2007 was issued after the cut-off date which linked the installation of FGD with the conditions regarding the SO₂ level at the site of Mundra UMPP. However, the MoEFCC Notification, 2015 made it mandatory for the thermal power plants to install FGD if the SO₂ level exceeds 200 mg/Nm³. According to the Petitioner, the actual observed emission level of Sulphur Dioxide for the station is in the range of 721 to 2179 mg/Nm³. Therefore, petitioner has stated that installation of FGD is necessary to



contain the SO₂ level within 200 mg/Nm³. In our view, requirement of compliance of new SO₂ norms in terms of MoEFCC Notification, 2015 through installation of FGD in case of Mundra UMPP is covered under Change in Law since the Petitioner had no occasion to factor in the cost of FGD at the time of submission of the bid as it was the obligation of the Procurers to obtain environmental clearance.

31. The Respondents have argued that the case of the Petitioner stands on a similar footing as JSW case where the expenditure on FGD was disallowed under Change in Law. Brief facts in JSW case may be first noted. JSW sought prior environment clearance from MoEF vide its proposal dated 6.11.2006. MoEF issued environment clearance dated 17.5.2007 which among other conditions stipulated that space provision shall be made for installation of FGD of requisite efficiency of removal of SO₂, if required at later stage and separate funds should be allocated for implementation of Environmental protection measures along with item wise break up and cost thereof should be included as part of the project cost. MSEDCL initiated the process of competitive bidding in October 2007 for procurement of power with cut-off date as 14.2.2008 (seven days prior to bid deadline). On 21.02.2008, the Appellant had submitted the bid for supply of 300 MW of power. The bid evaluation took place in March, 2008 and JSW was selected as the successful bidder. Power Purchase Agreement dated 23.02.2010 was entered into between MSEDCL and JSW for supply of 300 MW. Subsequently, MoEF sent a letter to JSW on 16.4.2010 directing that the FGD system would be installed before commissioning the Project. The Appellate Tribunal in its judgement has specifically noted that “as on the cut-off-date, the prior Environmental clearance received by the Appellant stipulated that the cost



relating to the implementation of the Environmental protection measures should be included as part of the Project cost.” After analysing the various provisions of the PPA and the Environment Clearance dated 17.5.2007 and MoEF Letter dated 16.4.2010, the Appellate Tribunal came to the conclusion that Clauses 5.4 and 3.1.ii of the PPA cast the obligation on JSW to provide for the cost of FGD in the capital cost and therefore, there is no Change in Law. Relevant para of the said judgement is extracted as under:

“30. As mentioned above, Environmental clearance dated 17.5.2007 provided for installation of the FGD at a later stage and further mandated that separate funds must be allocated for installation of the said FGD as well as for making such Environmental protection measures which are to be included in the project cost. Admittedly, this has not been complied with by the Appellant after getting the Environmental clearance. The letter dated 16.4.2010 issued by the Central Government merely confirms the requirement of installation of the FGD intimated earlier. It merely informs the Appellant the stage of installation. Therefore, there was no ‘Change in Law’ which has been occasioned as claimed by the Appellant.”

32. In case of the Petitioner, the project was conceived as a UMPP. As per the RFP, it was the responsibility of the Procurers to obtain the initial consent which included environment clearance and provide the same to the successful bidder before the issue of Lol. On the contrary, JSW was an independent power producer which was required to obtain all clearances including the environment clearance on its own from MoEF. Further, in case of JSW, environment clearance was granted (17.5.2007) before the cut-off date (14.2.2008) and accordingly, JSW was aware of the conditions imposed in the environment clearance while quoting the bid. The Appellate Tribunal accordingly held that JSW should have taken into account the capital expenditure towards FGD while submitting the bid. On the contrary, Mundra UMPP was granted environment clearance on 2.3.2007 after the cut-off date (i.e. 30.11.2006) and the environmental clearance was made available to the Petitioner



on the date of execution of the PPA (22.4.2007). Therefore, unlike the case of JSW, Tata Power being the successful bidder was not aware of the requirements of environment clearance while submitting the bid and therefore, could not be expected to include the expenditure on FGD in the quoted tariff. Further, condition in para 3(xxx) of the Environment Clearance dated 2.3.2007 provides for separate funds for environmental protection measures and reporting of year-wise expenditure to MoEF. The Petitioner has submitted that an amount of Rs.200 crore had been earmarked by the Petitioner for environment protection measures for a period of 25 years. The Petitioner has filed the copies of the letters under which the Petitioner has submitted the compliance reports regarding environment protection measures in terms of condition 3(xxx) of the EC dated 2.3.2007 for the years 2013-14, 2014-15, 2015-16 and 2016-17. Perusal of the said letters shows that the expenditure on FGD does not form part of the environment protection measures. The fact that no objection has been raised by MoEFCC with regard to the expenditure earmarked/incurred for environment protection measures shows that FGD is not included in the expenditure under condition 3(xxx) of the EC. Therefore, it cannot be said that the Petitioner was required to include the expenditure on FGD to be incurred in future if required at a later stage in terms of condition 3(ii) of the EC dated 2.3.2007. In view of the above reasons, we hold that the judgement of the Appellate Tribunal in JSW case is not applicable in the case of the Petitioner. The requirement of installation of FGD for compliance with the revised norms for sulphur dioxide in terms of the MoEFCC Notification, 2015 is covered under Change in Law in terms of the PPA dated 22.4.2007.



(C) Oxides of Nitrogen

33. The Petitioner has submitted that as on the Cut-Off Date, there were no applicable standards limiting emission of Nitrogen Oxide, which was required to be considered/maintained by Tata Power at the time of submission of its Bid. However, MoEF, vide its Environment Clearance dated 2.3.2007, required the Petitioner to install low NO_x burners, in order to reduce Nitrogen Oxide emissions. The Petitioner had installed the requisite low NO_x burners, providing a design guarantee of 600 mg/Nm³. The actual emission of Nitrogen Oxide at Mundra UMPP is in the range of 330 to 459 mg/Nm³ at 4% of O₂ (approximately 283 to 393 mg/Nm³ at 6% of O₂) which is well within the design guarantee of NO_x burner. However, the MoEFCC Notification has prescribed a stringent limit of emission of Nitrogen Oxide upto 300 mg/Nm³ (with respect to Thermal Power Plants installed between 1.1.2003 and 31.12.2016). Therefore, Nitrogen Oxide abatement measures are required to be undertaken to meet the MoEFCC norms. Since the requirement has been prescribed after the cut-off date, the Petitioner has claimed the expenditure to be incurred on measures to meet the NO_x norms in Mundra UMPP as change in law event. The Respondents have submitted that if the consents/clearances or standards as existing on the cut-off date already stipulated certain limits which are now confirmed by MoEFCC Notification, 2015, the same cannot be considered as Change in Law. The Respondents have submitted that the combustion control technologies would not require any catalysts or equipment and may be sufficient to bring the emissions within the prescribed limit of 300 mg/Nm³.



34. We have considered the submissions of the Petitioner and Respondents. As on the Cut-Off Date, there were no applicable standards limiting emission of Nitrogen Oxide. However, in para 3(xiii) of the EC dated 2.3.2007, the requirement was that “Low NO_x burners shall be provided”. No emission norms were prescribed in the EC. The Petitioner has installed the low NO_x burner and the current emission level of NO_x is in the range of 330 to 459 mg/Nm³ at 4% of O₂ (approximately 283 to 393 mg/Nm³ at 6% of O₂). However, as per the MoEFCC Notification, 2015, the NO_x norm is 300 mg/Nm³. In our view since the EC was made available to the Petitioner after the cut-off date and there was no emission standard in the Environment (Protection) Rules, 1986, the requirement towards meeting new emission norms for NO_x prescribed in MoEFCC Notification will qualify under Change in Law. Based on the report of the TCE, the Petitioner has proposed to adopt Selective Catalyst Reduction (SCR) technology for abatement of emission of NO_x at Mundra UMPP. The Respondents have submitted that the combustion control technologies would be sufficient to bring the emissions within the control of 300 mg/Nm³. We are of the view that the Petitioner should decide the technology for abatement of emission of NO_x in consultation with CEA while keeping the respondents informed.

(D)Emission of Mercury

35. The Petitioner has submitted that as on cut-off date, there were no applicable standards qua emission of Mercury. However, after the cut-off Date, MoEFCC Notification introduced new norms qua emission of Mercury and prescribed a limit of 0.03 mg/N m³m³ (with respect to Thermal Power Plants installed between 1.1.2003



to 31.12.2016). The Petitioner has submitted that traces of mercury present in the coal are present in flue gas proportionately. The Petitioner has clarified that the Petitioner meets the prescribed limit introduced by MoEFCC for Mercury emission and therefore, the Petitioner will not have to incur any capital and/or operational expenditure on account of change in emission rates of Mercury.

(E) Installation of Cooling Tower Systems (from Once Through Cooling System) and norms on restriction on water consumption

36. The Petitioner has submitted that as on cut-off date, there were no applicable standards qua maximum consumption of water for cooling purpose. Since the Petitioner's Mundra UMPP is a coastal power project, which uses sea water from the Arabian Sea for condenser cooling and for other fresh water requirement, the Petitioner has incorporated a Once through Cooling Water System. The Petitioner has submitted that the specific water requirement of Mundra UMPP per MW is about $0.3 \text{ m}^3/\text{MWhr}$ and intake quantity per MW is $589400 \text{ m}^3/\text{hr}$ which is $148 \text{ m}^3/\text{MWhr}$. MoEFCC Notification dated 7.12.2015 which was issued after the cut-off date has introduced the following norms for the thermal power plants installed between 1.1.2003 and 31.12.2016:

- (i) All plants with Once Through Cooling shall install Cooling Towers; and
- (ii) All plants shall achieve specific water consumption upto maximum of $3.5 \text{ m}^3/\text{MWhr}$.

The Petitioner has submitted that in order to comply with the said MoEFCC Notification, the existing Once Through based condenser cooling system would have to be modified to recirculating type cooling system with IDCT. The Petitioner has submitted that it has sought exemption from MoEFCC for existing UMPPs based on



sea water cooling system from the requirements of installation of Cooling Towers and limiting water consumption upto maximum of 3.5 m³/MWh. The Petitioner has submitted that MoEFCC has not yet responded to the request and if its request is accepted, the Petitioner would not be required to undertake implementation of the CTs. The Respondents have submitted that the installation of cooling towers was envisaged in the Environment Clearance dated 2.3.2007. Even otherwise, suitable system was to be provided to reduce water temperature. The Respondents have submitted that as per the details given by the Petitioner in page 6 of the petition, the Petitioner is already meeting the requirement of water consumption.

37. We have considered the submissions of the Petitioner and Respondents. On 22.12.1998, MoEF issued a Notification under sections 6 and 25 of the Environment (Protection) Act, 1985 amending the Environment (Protection) Rules, 1986. The said Notification provided that the new thermal power plants in coastal area which are using sea water should adopt suitable system to reduce water temperature at discharge point. The relevant provisions are extracted as under:

“B. New projects in coastal areas using sea water.

The thermal power plants using sea water should adopt suitable system to reduce water temperature at the final discharge point so that the resultant rise in the temperature of receiving water does not exceed 7⁰C over and above the ambient temperature of the receiving water bodies.”

Gujarat Maritime Board issued in-principle “No Objection Certificate” in favour of CGPL for drawal and usage of sea water for Mundra UMPP. In the Environment Clearance dated 2.3.2007 which was issued after the cut-off date, installation of cooling tower was provided as under:



“(xviii) Closed Cycle Cooling Water System with Cooling Tower shall be adopted. The treated effluents shall conform to prescribed standard before discharge.”

The above condition was amended by MoEF vide its letter dated 5.4.2007. The relevant provision is extracted as under:

“(xviii) Suitable system shall be provided to reduce the water temperature at the final discharge point so that the resultant rise in the temperature of receiving water does not exceed 7⁰C over and above the ambient temperature of the receiving water body.”

Thus the requirement of installation of cooling tower in case of Mundra UMPP was modified through the amendment dated 5.4.2007 to the EC dated 2.3.2007 and therefore, the Petitioner was not required to implement the Cooling Towers in terms of the EC dated 2.3.2007. In terms of the letter dated 5.4.2007, the Petitioner implemented the intake and outfall channel using the sea water and for discharging the water in the seas with the approval of the MoEF, Gujarat Maritime Board and Government of Gujarat. Since the MoEFCC Notification, 2015 mandates the Petitioner to install Cooling Towers which was not a requirement before the cut-off date and even in EC dated 2.3.2007 as amended vide letter dated 5.4.2007, it is covered under Change in Law. It is however noted that the Petitioner has taken up the matter with MoEFCC for reconsideration of the requirement of Cooling Tower and limit of the use of sea water in case of Mundra UMPP. Therefore, the implementation of the Cooling Tower and limit on water consumption shall be subject to the decision of MoEFCC on the representation of the Petitioner in this regard.

F. Additional Auxiliary Consumption:

38. The Petitioner has made request additional auxiliary consumption which has been discussed at para 12(f) of this Order. We are of the view that any decision on



this issue needs to be taken after CEA guidelines are received as stated in para 47 of this Order.

38. In view of the above discussion, we conclude that on account of the MoEFCC Notification, 2015, the Petitioner is affected by Change in Law in respect of change in norms for Sulphur dioxide, Nitrogen Oxide, requirement for installation of Cooling Tower System and norms on restriction of water consumption in terms of Article 13 of the PPA.

Issue No.2: If so, whether the requirement of notice as per the provisions of Article 13 of the PPA have been complied with by the Petitioner?

39. Article 13.3 provides for the “notification of Change in Law”. Article 13.3 of the PPA is extracted as under:

“13.3 Notification of Change in Law

13.3.1 If the Seller is affected by a Change in Law in accordance with Article 13.2 and wishes to claim a Change in Law under this Article, it shall give notice to the Procurers of such Change in Law as soon as reasonably practicable after becoming aware of the same or should reasonably have known of the Change in Law.

13.3.2 Notwithstanding Article 13.3.1, the Seller shall be obliged to serve a notice to all the Procurers under this Article 13.3.2 if it is beneficially affected by a Change in Law. Without prejudice to the factor of materiality or other provisions contained in this Agreement, the obligation to inform the Procurers contained herein shall be material. Provided that in case the Seller has not provided such notice, the Procurers shall jointly have the right to issue such noticed to the Seller.

13.3.3 Any notice served pursuant to this Article 13.3.2 shall provide, amongst other things, precise details of:

- (a) the Change in Law; and
- (b) the effects on the Seller of the matters referred to in Article.”



40. As per the above provisions, if the Seller is affected by Change in Law under Article 13.2 and wishes to claim change in law under the said Article, it is required to give a notice to the Procurers about the Change in Law as soon as reasonably practicable after becoming aware of the same. MoEFCC Notification, 2015 was issued on 7.12.2015. This Notification has to be mandatorily implemented within a period of two years i.e. upto 2017 which has subsequently been extended till 2022. The Petitioner issued a Change in Law notice to the Procurers of power from Mundra UMPP vide its letter dated 30.12.2015 in terms of Article 13.3 of the PPA, providing tentative impact affecting the Capital Cost due to installation of additional plants and equipment to implement the MoEFCC Notification, 2015 alongwith the cost during the operation period for the future. GUVNL as the lead Procurer sought certain details from the Petitioner vide its letter dated 16.1.2016 and also advised the Petitioner to take up the matter with MoEFCC with regard to applicability of revised environmental norms for existing power plants and revisiting the restrictions on water consumption and mandatory installation of Cooling Towers. The Petitioner vide its letter dated 27.1.2016 has taken up the matter with MoEFCC but no response has been received from MoEFCC. Further, the Petitioner vide its letter dated 15.2.2016 has furnished the design parameters of Mundra UMPP to GUVNL with respect to the environment clearance dated 2.3.2007 and 5.4.2007. Thereafter, the Petitioner has filed the present petition. Since the Petitioner has given the notice about Change in Law to the Procurers vide its letter dated 30.12.2015 with the tentative details of the additional plants and equipment required alongwith the tentative financial impact, the Petitioner has complied with the requirement of notice under Article 13.3 of the PPA.



Issue No.3: Whether the in-principle approval can be granted for implementation of the event covered under Change in Law in terms of the PPA?

41. The Petitioner has submitted that in order to meet the revised norms as prescribed in MoEFCC Notification, 2015, substantial investment is required to carry out retrofits and installation of additional equipment apart from its impact on the Operation & Maintenance costs, plant efficiency parameters such as Auxiliary Consumption, Unit Heat Rate etc. The Petitioner has submitted that all of these factors would have a bearing on the costs of power generation and the net power output of the generating Units. The Petitioner has submitted that it is important not only to have certainty of regulatory treatment of these costs and charges, but in-principle regulatory approval would be critical for arranging funds from the lenders. The present Petition has been filed under section 79 of the Act invoking regulatory powers of the Commission seeking in-principle approval for regulatory certainty qua the treatment of such costs and tariff impact for its recovery. The Petitioner has submitted that the Hon'ble Supreme Court by its judgement in the matter of Energy Watchdog V. Central Electricity Regulatory Commission & Others {(2007) 14 SCC 80} has upheld the regulatory powers of the Commission under Section 79 of the Act to grant relief even in cases where tariff is determined under Section 63 of the Act. In the present case, the Petitioner would be required to incur substantial Capex and Opex during the Operating Period for complying with the MoEFCC Notification, 2015. Since this unique situation of Capex and Opex during the Operating period is neither covered under the PPA nor under the Competitive Bidding Guidelines, the petitioner has stated that this is a fit case for exercise of regulatory power by the Commission and provide regulatory clarity as regards the treatment of these costs.



42. The Respondents have submitted that there is no provision in the PPA for in principle approval before the expenditure has been incurred and the compensation, if any, is payable under Article 13 only after the expenditure has been incurred. The Respondents have further submitted that the obligation to comply with the environmental norms is that of the Petitioner and the same is not subject to any approval by the Commission or reimbursement, if any, of costs by the Procurers. The Respondents have further submitted that the Hon'ble Supreme Court's judgement in Energy Watchdog Case clearly states that the powers of the Commission are to be exercised as per the provisions of the Competitive Bidding Guidelines and the PPA. The Respondents have further referred to the judgement of the Appellate Tribunal for Electricity dated 17.5.2018 in Appeal No. 283 of 2015 (Nabha Power Limited V. Punjab State Power Corporation Limited) wherein it has been held that there cannot be any relief de hors the PPA.

43. We have considered the submissions of the Petitioner and Respondents. We have already come to the conclusion in the earlier part of this order that MoEFCC Notification, 2015 is in the nature of Change in Law in terms of Article 13.1.1 (i) of the PPA. Being mandatory statutory requirements, the revised environment norms in respect of thermal power plants such as change in norms of Sulphur Dioxide, Nitrogen Oxide, requirement for installation of Cooling Tower System and norms on restriction of water consumption have to be implemented by the Petitioner by 2022. The relevant provisions of the PPA as regards the principles for computation of relief and tariff adjustment payment on account of Change in Law are extracted as under:

"13.2 Application and Principles for computing impart of Change in Law



While determining the consequence of Change in Law under this Article 13, 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 Payments, to the extent contemplated in this Article 13, the affected Party to the same economic position as if such Change in Law has not occurred.

a) Construction Period

As a result of any Change in Law, the impact of increase/decrease of Capital Cost of the Project, in the Tariff shall be governed by the formula given below:

For every cumulative increase/decrease of each Rupees Fifty crores (Rs. 50 crores) in the Capital Cost over the term of this Agreement, the increase/decrease in Non Escalable Capacity Charges shall be an amount equal to zero point two six seven (0.267%) of the Non Escalable Capacity Charges. Provided that the Seller provides to the Procurers documentary proof of such increase/decrease in Capital Cost for establishing the impact of such Change in Law. In case of Dispute, Article 17 shall apply.

It is clarified that the above mentioned compensation shall be payable to either Party, only with effect from the date on which the total increase/decrease exceeds amount of Rs. fifty (50) crores.

b) Operation Period

As a result of Change in Law, the compensation for any increase/decrease in revenues or cost to the Seller shall be determined and effective from such date, as decided by the **Central Electricity Regulatory Commission** whose decision shall be final and binding on both the Parties, subject to rights of appeal provided under applicable Law.

Provided that the above mentioned compensation shall be payable only if and for increase/decrease in revenues or cost to the Seller is in excess of an amount equivalent to 1% of Letter of Credit in aggregate for a Contract Year.”

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13.4 Tariff Adjustment Payment on account of Change In Law

13.4.1 Subject to Article 13.2, 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
- (iii) the date of order/judgment 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.

13.4.2 The payment for Changes in Law shall be through Supplementary Bill as mentioned in Article 11.8. However, in case of any change in Tariff by reason of Change in



Law, as determined in accordance with this Agreement, the Monthly Invoice to be raised by the Seller after such change in Tariff shall appropriately reflect the changed Tariff."

44. The principle for computation of relief under Change in Law is that the party affected by Change in Law shall have to be restored to the same economic position as if the Change in Law has not occurred. Further, all the units of the Mundra UMPP have achieved their commercial operation. Therefore, the compliance of revised environment norms shall be implemented during the operating period. Article 13.2.(b) of the PPA provides that during the operating period, the increase or decrease in the revenue or cost shall be determined and effective from such dates as may be decided by this Commission. Proviso to Article 13.2.(b) provides the threshold limit of the expenditure subject to which the compensation shall be payable. Article 14.4.1(a) of the PPA provides that subject to Article 13.2, the adjustment in the monthly tariff shall be effective from "the date of adoption, promulgation, amendment, re-enactment or repeal of the Law or Change in Law". Therefore, the above provisions of the PPA enable the Commission not only to declare an event as Change in Law subject to satisfaction of any of the conditions mentioned in Article 13.1.1 but also to determine the increase or decrease in revenues or cost to the Seller on account of operation of Change in Law keeping in view the restitution principle and the effective dates from which such compensation can be paid. There is no concept of in-principle approval in the PPA, and we find no reason to accord such approval as prayed for by the petitioner. The consequential implementation of Change in Law and compensation will flow from the declaration and recognition that MoEFCC Notification is a Change in Law. However, we have already concluded that MoEFCC Notification, 2015 is in the nature of Change in Law in terms of the PPA as well as



the directions issued by the Central Government under Section 107 of the Act. Further, the Change in Law will be applicable on those items of cost or revenue which the Petitioner has claimed and is approved by the Commission. The Petitioner shall implement the revised environment norms to comply with the MoEFCC Notification and approach the Commission for determination of the increase in cost or/and revenue expenditure on account of implementation of such Change in Law in terms of guidelines to be prepared by CEA as stated in para 47 of this Order. At that stage, the Commission will determine the mode of recovery of the cost or/and revenue expenditure for the Petitioner through monthly tariff which shall be incurred for compliance with the MoEFCC Notification.

Issue No.4: Whether any guidelines are to be issued for implementation of MoEFCC Notification, 2015?

45. The compliance of the revised norms specified under the MOEFCC Notification by the Petitioner would require identification of suitable technology depending upon location of plant and existing level of emission from such plant. The Petitioner has submitted that it appointed Tata Consulting Engineers, an Independent Consultant, for a feasibility report on the implementation of the revised standards of environment pollution. The TCE has submitted a pre-feasibility report which the Petitioner has placed on record as Annexure-17 to the petition. The Petitioner has projected a one-time Capital Expenditure of Rs.11,021 crore to (i) set up additional plant, machinery and equipment such as Flue Gas Desulphurization Plant ("FGD"), Selective Catalytic Reduction ("SCR") and Inducted Draft Cooling Towers (IDCT); and (ii) carry out necessary modifications to the existing plant, machinery and equipment; (b) Recurring Operational Expenditure on an annual basis (approximately Rs. 1,012



Crore for the first year of full operation), towards purchase of raw material, consumables, maintenance etc. and (c) Adverse financial impact of depressed/lower performance parameters of Mundra UMPP due to such modifications. The Petitioner has also submitted about the impact of the implementation of the revised norms on additional auxiliary consumption which has been discussed in para 9(c) of this order. As already stated, any decision on cost towards meeting the new NoEFCC norms, would be taken after CEA guidelines are framed.

46. In para (c) and (d) of the prayers, the Petitioner has asked for the following:

“(c) Prescribe, devise and apply appropriate norms for computing the adjustment in tariff to offset the additional investment/increase in costs due to MoEFCC Notification for justly restituting the Petitioner to the same economic position as if such Change in Law event had not occurred.

(d) Prescribe any safeguards/ guidelines to be followed in implementation/ carrying out necessary changes for complying with the MoEFCC Notification.”

47. In our view, a mechanism also needs to be devised for addressing the issues like identification of suitable technology for each plant for implementation of ECS, its impact on operational parameters and on tariff, and the recovery of additional capital and operational cost. The Commission in the order dated 20.7.2018 in Petition No.98/MP/2017 has directed the CEA to prepare guidelines specifying the following:

(a) Suitable technology with model specification for each plant, with regard to implementation of new norms.

(b) Operational parameters of the thermal power plants such as auxiliary consumption, O&M expenses, Station Heat Rate etc., consequent to the implementation of ECS.



(c) Norms of consumption of water, limestone, ammonia etc., required for operation of the plants after implementation of ECS.

(d) Any other detailed technical inputs.

48. The Petitioner is accordingly directed to implement the revised norms for Mundra UMPP in consultation with CEA.

Summary of our Decisions

49. Summary of our decisions in this order are as under:

(a) MoEFCC Notifications, 2015 prescribing the revised environmental norms in respect of thermal Power plants which has been issued after the cut-off date of Mundra UMPP are in the nature of Change in Law in terms of the PPA dated 22.4.2007 and the MoP directions issued under Section 107 of the Act.

(b) The Petitioner has given notice regarding Change in Law arising out of MoEFCC Notification in terms of the PPA.

(c) The Petitioner is required to take steps to implement revised norms in respect of Sulphur Dioxide, Nitrogen Oxide and water consumption. The Petitioner has taken up the matter with MoEFCC for exemption from implementing the norms for water consumption and therefore, the implementation of the norms of water consumption shall be dependent on the decision of MoEFCC in this regard.



(d) Mundra UMPP meets the norms prescribed in MoEFCC Notification, 2015 with regard to particulate matters and mercury and accordingly, the Petitioner has not claimed the relief under Change in Law.

(e) The Commission has directed CEA vide its order dated 22.7.2018 in Petition No. 98/MP/2017 to prepare guidelines specifying the suitable technology for each plant and operational parameters such as auxiliary consumption, Station Heat Rate, O&M expenses, norms of consumption of water, lime stones etc. for implementation of revised environmental norms. The Petitioner shall implement the revised norms as per the MoEFCC Notification, 2015 in consultation with CEA.

(f) There is no provision for in-principle approval in the PPA. However, the Commission has decided that MoEFCC Notification, 2015 is in the nature of Change in Law. Accordingly, the Petitioner shall approach the Commission for determination of increase in cost or/and revenue expenditure on account of implementation of revised norms in accordance with the Guidelines to be issued by CEA and the mode of recovery of the same through monthly tariff.

50. Petition No.77/MP/2016 is disposed of in terms of the above.

sd/-
(Dr. M.K. Iyer)
Member

sd/-
(A. K. Singhal)
Member

sd/-
(P. K. Pujari)
Chairperson

