

**PUNJAB STATE ELECTRICITY REGULATORY COMMISSION
SCO NO. 220-221, SECTOR 34-A, CHANDIGARH**

**Petition No. 02 of 2018
Date of order: 09.01.2019**

Present: **Ms. Kusumjit Sidhu, Chairperon
Sh. S.S. Sarna, Member
Ms. Anjuli Chandra, Member**

In the matter of : Petition under Section 86 (1) (b) read with Section 86 (1) (f) of the Electricity Act, 2003 and Article 13 of the Power Purchase Agreement executed by NPL and Punjab State Power Corporation Limited dated 18.01.2010, for the approval and consequent tariff adjustment sought by NPL due to a 'Change in Law' event viz. the introduction of new environmental norms by the Environment (Protection) Amendment Rules, 2015 issued by the Ministry of Environment, Forest and Climate Change dated 07.12.2015, impacting the revenues and costs of NPL during the operating period under the Power Purchase Agreement dated 18.01.2010.

AND

In the matter of: Nabha Power Limited, Aspire Tower, 4th Floor, Plot No.55, Industrial and Business Park, Phase-1, Chandigarh-160 002.

.. Petitioner

Versus

Punjab State Power Corporation Ltd., through its Engineer-in-Chief, Thermal Designs, PSPCL, Shed No.T-2, Thermal Design Complex, Patiala – 147001.

...Respondent

ORDER

Nabha Power Limited (NPL), has filed the present petition under Section 86 (1) (b) read with Section 86 (1) (f) of the Electricity Act, 2003 and Article 13 of the Power Purchase Agreement (PPA) dated 18.01.2010 executed by NPL and Punjab State Power Corporation Limited (PSPCL) for the approval and consequent tariff adjustment due to a 'Change in Law' event viz. the introduction of new environmental norms by the Environment (Protection) Amendment Rules, 2015 issued by the Ministry of Environment, Forest and Climate Change (MoEF & CC) dated 07.12.2015, impacting the revenues and costs of NPL during the operating period under PPA dated 18.01.2010. NPL prayed to declare that the amendment to environmental norms is a Change in Law event in accordance with Article 13 of PPA, approve the methodology/ mechanism for recovery of the amounts incurred on account of Change in Law, approve in-principle project cost, to direct PSPCL to compensate NPL for all actual costs to be incurred by NPL in order to comply with the amended environmental rules and to allow the re-imburement of legal and administrative costs incurred by NPL in pursuing the instant petition.

2. On 09.03.2018, the petition was admitted PSPCL was directed to file a reply within a week and NPL was directed to file rejoinder, if any, within the next week. NPL was further directed to submit within two weeks the details regarding environmental clearance, the amounts kept in the project for complying with the environment norms as per directive of MoEF and copy of communication received from Central Pollution Control Board

(CPCB) regarding revised time lines on FGD installation to meet revised environment norms and concurrence of Ministry of Power. PSPCL submitted its reply on 27.02.2018. On 20.03.2018, NPL, in compliance of the order dated 09.03.2018, filed an additional affidavit annexing therewith the copy of the environmental clearance, copy of the consents and authorization issued by the Punjab Pollution Control Board (PPCB), copy of the reports submitted to PPCB at the time of Commissioning and the Environmental Compliance report, copy of the documents having details of amounts spent towards implementation of the Environmental protection measures and copy of letter dated 11.12.2017 issued by CPCB. NPL filed rejoinder to the reply filed by PSPCL on 28.03.2018. The petition was taken up for hearing on 04.04.2018 wherein PSPCL requested to file written submissions. Vide order dated 06.04.2018, PSPCL was allowed to file the same within ten days with a copy to NPL, further directing NPL to file written reply within ten days thereafter. PSPCL was also directed to submit details of SO₂ and NOX etc. emissions as submitted by NPL to PSPCL from time to time, and was further directed to check local MoEF office in Chandigarh regarding any observations made by MoEF on the Environmental Compliance Reports filed by NPL.

PSPCL and NPL filed their written submissions on 19.04.2018 & 03.05.2018 respectively. Vide Order dated 14.05.2018, NPL was directed to submit the recommendations of CEA specific to NPL, within a week. Vide Order dated 18.05.2018, NPL was directed to resubmit the data to CEA and PSPCL, after making necessary corrections and to submit the comparative statement/ report of data submitted earlier and revised data to be submitted to CEA

and to file the recommendations of CEA regarding installation of FGD/ compliance of environmental norms, immediately after issuance of the same by CEA and approach PSERC for fixing the next date of hearing. NPL and PSPCL were further directed to file in writing, the submissions made during the hearing. On 15.06.2018, PSPCL filed written submissions. On 27.07.2018, NPL submitted letter no. 496 dated 20.07.2018 received from Government of India, Ministry of Power, CEA, along with recommendation report of CEA to meet the new MoEF and CC emission norms in 2x700 MW Super Critical Thermal Power Plant of NPL at Rajpura, Punjab. On 11.08.2018, NPL filed written submissions and additional affidavit in compliance of the Order dated 18.05.2018.

3. The Commission while reserving its Order on 17.09.2018 after hearing both the parties directed them to file consolidated written submissions and certain information within 10 days. NPL filed additional affidavit and written submissions on 24.09.2018. PSPCL filed its consolidated written submissions on 28.09.2018.

4. **The submissions made by NPL in the Petition are summarized as under:**

i. The present petition has been filed by NPL seeking approval and consequent tariff adjustment due to a 'Change in Law' event viz. the introduction of new environmental norms by way of the Environment (Protection) Amendment Rules, 2015 notified on 07.12.2015, issued by the Ministry of Environment, Forest and Climate Change ("Notification"), resulting in additional capital and operating expenditure, impacting the revenues and costs of NPL. The said tariff adjustment has been sought in terms of Article 13 of

the PPA dated 18.01.2010 executed between NPL and PSPCL for sale of power from the 2x700 MW Rajpura Thermal Power Project, (herein after referred to as "Project").

ii. The Project has been envisaged under the Case 2 route, wherein the procurer is responsible for the following activities in terms of Clause 3.2 of the Competitive Bidding Guidelines:

- a. Site identification and land acquisition;
- b. Environment clearance;
- c. Forest clearance, if applicable;
- d. Fuel arrangement;
- e. Water linkage; and
- f. Requisite hydrological, geological, meteorological and seismological data necessary for preparation of Detailed Project Report (DPR).

Therefore, the environmental clearance and the obligation to acquire land for the project was that of PSPCL. As the Project was conceived and awarded under the Case 2 Scenario 4 of the Competitive Bidding Guidelines read with the model RfP issued by the Ministry of Power as part of the standard bidding documents, the land for the project was accordingly, acquired by NPL, which was then the wholly owned subsidiary of Punjab State Electricity Board (PSEB/ now PSPCL).

iii. On 07.12.2015, MoEF & CC in exercise of the powers conferred by Sections 6 and 25 of the Environment (Protection) Act, 1986 ("1986 Act") issued a Notification effecting amendments to the Environment (Protection) Rules, 1986 ("1986 Rules") by way of Environment (Protection) Amendment Rules 2015. The said amendments were introduced in Schedule I of the Environment (Protection) Rules, 1986. All new and existing thermal power

stations were required to comply with the new norms within a period of two years from the date of the Notification. The MoEF & CC by way of the said amendment:

- a) Revised emission parameters of Particulate Matter (“PM”) to 50mg/NM³ under Amendment Rules instead of 100 mg/NM³ under 1986 Rules;
- b) Introduced emission limits for new parameters:
 - Sulphur Dioxide (SO₂) emission limited to 200 mg/NM³ (new norm);
 - Oxides of Nitrogen (NO_x) emission limited to 300 mg/NM³ (new norm); and
 - Mercury (Hg) emission limited to 0.03 mg/NM³ (new norm)
- c) Directed that all Thermal Power Plants with Once Through Cooling (“OTC”) shall install Cooling Tower (“CT”) and achieve a specific water consumption up to maximum of 3.5 m³/MWh.
- iv. India issued its Internally Determined National Contributions (“INDCs”) in response to the Conference of Parties decisions taken in 1/CP.19 (held in November 2013) and 1/CP.20 (held in December 2014) for the period 2021-2030. These INDCs were invited from all parties to initiate or intensify domestic preparations towards achieving the objective of the UNFCCC as set out in its Article 2. One of the many objectives listed by the Government of India under the INDCs that were issued was “to adopt a climate friendly and a cleaner path than the one followed hitherto by others at corresponding level of economic development”. To achieve this, India in its INDC has expressly mentioned that it shall seek to “enhance the existing policies” and “launch new initiatives in the following priority areas”, one such area being, “Introducing new,

more efficient and cleaner technologies in thermal power generation". Government of India has made certain commitments at the international level with regard to use of cleaner generation technology and consequently lesser emissions.

v. However, these commitments have been made around 2013-14, which is much after the bid submission date for the present project. The new norms introduced by the Notification were not even in contemplation at the time of submission of the bid in the year 2008 and as such NPL had no means of anticipating the possible change in the environmental norms introduced by way of the Notification since the norms existing as on that date were in terms of the provisions of the 1986 Rules.

vi. The issuance of the Notification is a Change in Law event in terms of Article 13.1.1(i) of the PPA as the said Notification is an amendment of the existing law i.e. the 1986 Rules. The Notification also amounts to a Change in Law in terms of Article 13.1.1(iv)(c) of the PPA as the said Notification by necessary implication amends/ alters the existing Environmental Management Plan and therefore alters the cost of implementing the Environmental management plan for the power station.

vii. In terms of the extant rules and regulations at the time of bid submission i.e. the 1986 Act and the 1986 Rules, there were no norms for SO₂ and NO_x emissions. Thus the generating companies did not have to comply with any norms with regard to SO₂ and NO_x emission levels as per the 1986 Rules, until the issuance of the Notification, which introduced such emission standards for the first time.

viii. In terms of the PPA, the cut-off date for triggering of a Change in Law event was 7 days from the date of bid submission, i.e. 02.10.2009 in the present case. In terms of the extant rules

and regulations prevailing at the time of bid submission, NPL was not required to comply with any other emission standards except with regard to particulate matter emissions. Flue Gas Desulphurization system (“FGD”) and Selective Non-Catalytic Reduction technology (“SNCR”) which are now required in order to comply with the new norms on SO₂ and NO_x emissions, were not included in the extant rules and regulations prevailing at the time of bid submission. The cost of such equipment was not required to be factored at the time of bid submission. The power station of NPL is a cooling tower based thermal power plant comprising two units of 700 MW each which was commissioned in 2014. The norms now applicable upon the Project of NPL are tabulated as follows:

Applicable Emission Norms for the Project						
Year of Commissioning of Petitioner's Plant	of Power	SPM	SO ₂	NO _x	Mercury	Water consumption
2014		50mg/N m ³	200mg/N m ³ for >500 MW	300mg/ Nm ³	0.03mg/ Nm ³	Specific water consumption upto 3.5m ³ /MWh

ix. In order to ensure that the Project of NPL meets the standards of emission applicable upon it in terms of the Notification, it will have to incur capital expenditure for the installation of certain equipment such as FGD and SNCR and a water treatment system. Further, NPL will also incur operation and maintenance expenditure for operating the above equipment during the operating period. Further, ‘law’ as defined under the PPA, is an inclusive definition and inter alia includes any regulation, notification and rule of an Indian Governmental Instrumentality which has the force of law.

The relevant excerpts of Article 1.1 of the PPA are as under:

“1. ARTICLE 1: DEFINITIONS AND INTERPRETATION

1.1 Definitions

The terms used in this Agreement, unless as defined below or repugnant to the context, shall have the same meaning as assigned to them by the Electricity Act, 2003 and the rules or regulations framed there under, including those issued/framed by Appropriate Commission (as defined hereunder), as amended or re-enacted from time to time.

...

“Indian Government Instrumentality” means the GOI, Government of Punjab, and any ministry or, department or board or agency other regulatory or quasi-judicial authority controlled by GOI or Government of the State where the Procurer and Project are located and includes the Appropriate Commission;

...

“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.”

The MoEF & CC is a Ministry under the Central Government and therefore, qualifies as an Indian Government Instrumentality under the PPA. Hence, the Notification is ‘Law’ as defined under Article 1.1 of the PPA.

x. Further, Article 13 of the PPA executed between the parties clearly envisages a compensation to be made to NPL due to any increase in the cost to NPL, which shall be determined and given effect to from such date as decided by the Commission. The said compensation is aimed at putting the affected party in the same economic position as if such Change in Law event never occurred. In other words, PSPCL in the present case is liable in terms of the

PPA, to compensate NPL to the extent of additional expenditure that NPL is compelled to incur as a result of the issuance of the Notification. The Notification issued by the MoEF & CC is clearly a 'Change in Law' event as provided under Article 13 of the PPA. which along with the relevant clauses is excerpted below:

“13. 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 Law by a Competent Court of law, tribunal or Indian Governmental Instrumentality provided such Court of law, tribunal Governmental Instrumentality is final authority under law for such interpretation or (iii) 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 Procurer 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 any rehabilitation package of the land for the Project mentioned in the RfP or (c) the cost of implementing Environmental Management Plan for the Power Station (d) Deleted but shall not include (i) any change in any withholding tax on income or dividends distributed to the shareholders of the Seller, or (ii) change in respect of UI charges or frequency intervals by an Appropriate Commission.

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.

13.2 Application and Principles for computing impact 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 Rs. 16,50,00,000/- (Rupees Sixteen crore fifty lakh) in the Capital Cost over the term of this Agreement, the increase/decrease in Non Escalable Capacity Charges shall be an amount equal to 0.267% (percentage zero point two six seven) of the Non Escalable Capacity Charges. Provided that the Seller provides to the Procurer 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. 16,50,00,000/- (Rupees Sixteen crore fifty lakh)).

(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 Appropriate 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 the Letter of Credit in aggregate for a Contract Year.

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 Procurer 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 13.1.1, the Seller shall be obliged to serve a notice to the Procurer 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 Procurer contained herein shall be material. Provided that in case the Seller has not provided such notice, the Procurer shall have the right to issue such notice 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 13.2.

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
- (ii) 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.”

xi. The said notification squarely falls within the meaning of ‘Change in Law’ as agreed between the parties under the PPA and the impact of the said ‘Change in Law’ event is in the ‘Operating Period’ of NPL’s Power Station as it has occurred after the COD of the last unit of the Power Station i.e. on 10.07.2014. Therefore, NPL is entitled to compensation in the form of an upward tariff adjustment for ‘Change in Law’ in accordance with Article 13 of the PPA. As a result of the Notification, NPL is being compelled to

incur additional expenditure, both capital and operational, towards the installation of all the requisite equipment to ensure compliance with the new norms i.e. FGD, SNCR and a water treatment system. There will also be an impact on the operational parameters such as the Station Heat Rate as well as the Auxiliary Power Consumption etc. Further, the plant of NPL would remain shut down during the period of installation and commissioning of the above equipment. These would also lead to a loss of revenue and increase in expenditure for NPL.

xii. Further, as per the proviso to Article 13.2 (b) of the PPA, NPL is entitled to tariff adjustment for any Change in Law (to put the affected party in the same economic position as if such Change in Law had not occurred), provided that the impact of the said Change in Law is more than 1% of the aggregate of Letter of Credit amount in a Contract Year. With respect to the threshold for payment of compensation under Article 13.2(b), NPL satisfies the 1% threshold limit prescribed under Article 13.2 (b) of the PPA.

xiii. The intent and purpose of the Change in Law clause in the PPA, is to restore the affected party to the same economic position as if the said Change in Law had not occurred. The same is only possible if NPL is compensated for both the capital as well as operational expenditure incurred due to the installation and operation of the various emission reduction equipment. NPL will not be able to proceed with its business of selling electricity beyond the date by which the said mandatory conditions have to be implemented, without implementing the binding stipulations of the Notification by incurring additional capital and operating costs. Accordingly, it is only when the Commission gives an in-principle approval of the project cost and allows compensation to NPL,

through an adjustment in the tariff on account of the aforesaid Change in Law event that it will be possible for NPL to proceed with implementing the conditions of the Notification by way of incurring the aforesaid expenditure. The in-principle approval of the Commission is also necessary for NPL to approach its Lenders to seek sanction of debt facilities, which is required by NPL to incur this significant expenditure. The in-principle approval will also be required by the Lenders to get clarity on the compensation that NPL is entitled to on this incremental expenditure.

xiv. In order to achieve the environmental standards as per the new Notification petitioner had appointed M/s TCE to prepare a feasibility report ("TCE Report") on the technology, equipment and cost estimates for implementing the necessary measures to comply with the new / revised norms under the Notification. The details of the equipment to be installed as per the TCE Report along with the cost implications are as under:

a) (i) Installation of FGD to comply with Sulphur Dioxide Emissions Sulphur oxides are generated as a result of oxidation of the sulphur present in the coal at the combustion zone. The SO₂ emission levels would vary depending on the sulphur content and the composition of the coal fired. NPL pursuant to recommendations of TCE has selected wet limestone Flue Gas Desulphurization technology ("FGD") to control the levels of SO₂ and to keep it within permissible limits. The main components of the FGD system are as under:

- Wet Absorber
- Gas to Gas heater
- Limestone Slurry Preparation system
- Waste Water Treatment System

- Gypsum Handling System
- Limestone storage, handling and crushing system

In this process, using the abovementioned components, limestone is ground in the mill and added with water to make slurry and sprayed on the absorber through nozzles. The flue gas coming out from the ID fan is sent to absorber where it reacts and forms the gypsum. The cleaned flue gas is sent to the chimney. The system is a once-through, wet type in which the SO₂ gas is permanently bound by the sorbent which must be disposed of as a by-product, gypsum. The by-product produced at absorber is wet slurry in nature which is dewatered to form cakes, and flue gas leaving the absorber is saturated with moisture.

(ii) The primary costs associated with operating the abovementioned system can be divided into the following heads:

- Cost of Reagent [Limestone]:
- Additional Auxiliary Power Consumption:
- Additional Clarified Water FGD:
- Additional Operating Cost of FGD Waste
- Water RO Plant:
- Maintenance & Manpower Cost for FGD:
- By-product associated costs:
- Other costs such as Capital expenses, loss of revenue due to shut-down, annual operating costs etc.

b)(i) Installation of SNCR to comply with norms for Oxides of Nitrogen:-

Oxides of Nitrogen are generated as a result of combustion of coal at elevated temperatures. The NO_x emission levels depend on the composition of coal, operating load and nature of operation. The

estimated emissions for the given input coal types furnished by the Appellant, exceeds the permissible emission standard of 300 mg/Nm³ with the existing installed NO_x control technologies. The existing units are presently equipped with the combustion control technologies of Low NO_x Burners (LNB) with supply of Close-Coupled Over-Fire Air (COFA) air, through the auxiliary air ports located at the top of the wind box. However, the same are not equipped to restrict the NO_x emission levels under the newly prescribed standards. Hence, the first step to control the NO_x emissions is to further restrict the uncontrolled NO_x generation at the combustion zone of the boiler by combustion tuning and performance enhancement of the existing combustion control technologies. The SNCR system has been suggested for restricting the NO_x emissions of the plant of the Appellant. A brief overview of the process by which the abovementioned system works is discussed hereinafter. The process involves injecting either ammonia or urea into the firebox of the boiler at a location where the flue gas is between 700 to 1100 Degree Celsius to react with the nitrogen oxides formed in the combustion process. The resulting product of the chemical redox reaction is molecular nitrogen (N₂), carbon dioxide (CO₂), and water (H₂O). Aqueous Ammonia or urea is injected through injection nozzles or lancers into the upper combustion zone with gas temperatures in the range of 700 to 1100°C. At lower flue gas temperatures, the reaction rate would decrease resulting in higher levels of NO_x with increased ammonia slip. At higher temperatures, reduction effectiveness of reaction reduces and increased NO_x levels may occur due to the oxidation of the reagent. The system includes provisions to mix the reagent and the carrying medium is usually

water or compressed air. The reagent may or may not be vaporized since, temperature of the flue gas is typically sufficient to vaporize it in the furnace.

(ii) The primary costs associated with operating the abovementioned system can be divided into the following major heads:

- Cost of Reagent:
- Additional Cost due to Reduction in Boiler Efficiency:
- Additional Auxiliary Power Consumption:
- Additional DM Water for Dilution/ Solutionizing:
- Other costs such as Annual operating costs, Maintenance and Manpower Cost, Capital Expenses etc.

xv. As per the preliminary assessment of TCE of the estimated cost, NPL will be required to incur an additional expenditure to the tune of approximately Rs. 1.345 Cr./ MW on account of capital cost and Rs. 7.73 lac/MW/year on account of operating and raw material cost. The aforesaid estimate covers fixed capital expenditure and recurring operational expenditure for the remaining tenure of the PPA. The aforesaid estimate does not include the impact on account of increase in the auxiliary consumption which will consequently result in reduction of the Contracted Capacity, thereby necessitating an increase in the capacity charge tariff and amendment to the PPA. Further, the estimate also does not include the following:

- a) Interest During Construction (IDC) cost;
- b) Margin money for working capital;
- c) Exchange rate variation and cost of hedging;
- d) Cost of OEM services regarding interconnection with existing facilities;

- e) Pre-operative Expenses;
- f) Escalation on the Secondary Fuel Oil Costs and Start Up Power;
- g) Return on Equity (ROE); and
- h) Land acquisition cost for 70 Acres of gypsum disposal dyke.

xvi. As per NPL's preliminary estimates based on TCE Report, NPL would require 32 months from the date of order placement for the FGD equipment for installation of such equipment and a further 4 months of shutdown of both units in order to comply with the conditions of the Notification. However, the said timeline could undergo a change subject to various extraneous factors such as the exact technology selected to be implemented, time as to be given by technology supplier and other such uncontrollable variables. Approval of the Commission is imperative for the purpose of awarding the contract for FGD equipment. Considering that the installation of the equipment would consume significant amount of time and also keeping in mind the deadlines for implementation of the Notification, grant of approval by the Commission in an expeditious manner is important. NPL has, after taking notice of the Notification issued by the MoEF & CC, taken appropriate actions in order to ensure its preparedness for compliance with the new environmental norms applicable to the Project.

xvii. In this regard, by way of communication dated 12.02.2016, NPL duly informed PSPCL of the Notification and enclosed a copy of the same therewith. In the said letter, NPL clearly and unambiguously apprised PSPCL of the Notification and the consequent measures it will have to undertake to comply with the new environmental norms. NPL promptly satisfied the requirement

of notifying PSPCL of the occurrence of the Change in Law, as prescribed under Article 13.3 of the PPA, vide its letter dated 12.02.2016. Having complied with all the prerequisites for claiming relief under Article 13 of the PPA, as elaborated in the foregoing paragraphs, that NPL ought to be granted relief by way of an upward revision in tariff on account of the Change in Law event.

xviii. Northern Regional Power Committee (“NRPC”), Ministry of Power, has issued a phasing plan for FGD installation vide its letter dated 4.10.2017 recording the minutes of the 36th Technical Coordination Committee meeting. The said phasing plan stipulates a timeline of March-April 2021 and Jan- February 2021 for NPL Unit 1 and Unit 2 respectively. According to NPL, in terms of Article 13 of the PPA, PSPCL is obliged to compensate NPL by way of adjusted tariff due to additional expenditure to be incurred due to a Change in Law event. In addition, PSPCL is bound to compensate NPL by the general law of contract and the prevalent industry practice. The present Notification entails a significant increase in the capital cost of the project during the operation phase and well past the construction phase. NPL stated that to select appropriate equipment suppliers, contractors and any other agencies that might be required to be appointed to ensure compliance with the Notification, NPL proposes to conduct a transparent competitive bidding process to firm up the capital expenditure, in coordination with PSPCL, to firm up the capital expenditure subject to the Commission’s approval.

xix. The environmental clearance dated 03.10.2008, granted to NPL (i.e. Nabha Power Limited, which was then the wholly owned subsidiary of Punjab State Electricity Board, now PSPCL) did not contain any such mandatory condition regarding installation of

FGD system or SNCR system. The said clearance only directed PSPCL to keep adequate space provision for retrofitting of FGD, if required at a later stage. Environmental clearance and the obligation to acquire land for the project was that of PSPCL/ PSPCL, considering the present project was conceived and awarded under the Case 2 Scenario 4 of the Competitive Bidding Guidelines issued by the Ministry of Power under Section 63 of the Electricity Act, 2003 read with model RfP issued by the Ministry of Power as part of the standard bidding documents. The said space for FGD unit was appropriately provisioned at serial number 19 in the plot plan, which is laid out in Schedule 1A of the PPA. The said condition only required PSPCL to provide for adequate space for installation of the above systems, which was duly complied with by NPL in terms of the Land acquired by PSPCL prior to submission of bids as mentioned above. The intention behind incorporation of the said provision could not have been to factor in the capital and operation and maintenance cost associated with installation of the FGD and SNCR system as well. The said condition was incorporated to ensure that in case the Government decided to notify certain norms for installation of FGD systems in future, as has been done in the instant case, the project developers should not claim inability to comply with the same on account of unavailability of land.

xx. In any case, the requirement for installation of FGD and SNCR system was not required to be complied with by NPL at the time of submission of bid as the 1986 Rules based upon which the clearance of the MoEF & CC was granted, did not envisage any such equipment to be installed. The said installations of FGD and SNCR system were not mandatory at the time when the Project

was conceived and bid was submitted by NPL. Accordingly, NPL was not required to factor such costs of FGD and SNCR in the capital cost of the Project. Further, a project developer cannot be expected to build in such a significant cost as regards installation of the FGD and SNCR system as part of the capital cost of the project based on a mere possibility that the FGD and SNCR system might have to be installed at a future date. Assuming if no notification would have been issued by the MoEF & CC during the term of the project, then the consumers would have still paid a higher tariff without installation of such equipment. Such a proposition should clearly be rejected as it envisages irrationality. The requirement of having a separate fund earmarked for the implementation of environmental protection measures in the aforesaid environmental clearance was only for the purpose of giving effect to the conditions explicitly mentioned in the clearance. The said requirement cannot be construed to mean that NPL was required to factor in all possible future amendments in environmental norms and earmark separate funds for the same. At the time when the Environment Protection Act, 1986 along with the Environment Protection Rules 1986 were promulgated, there were no specific emission restrictions envisaged for S_{O_2} and N_{O_x} , respectively. The extant rules and regulations before the issuance of the Notification did not provide or prescribe any emission standards for SO_2 and NO_x gases. The Notification has for the first time introduced emission standards for SO_2 and NO_x gases. As such, NPL could not have contemplated a scenario at the time of bid submission, wherein it would be required to install certain additional equipment for the purpose of checking the emission of the abovementioned gases. Therefore, NPL could not be expected

to make a provision for installation of such equipment in the capital as well as operational cost of the project since inception of the project itself and as such the same has to be allowed as a Change in Law in terms of Article 13 of the PPA. NPL has reiterated its prayer as already reproduced on Page 2 of the instant Order.

5. The submissions made by PSPCL vide Memo No. 6478 dated 27.02.2018 in reply to the petition are summarized as under:

- i. NPL has filed the present Petition with regard to the claim for change in law under Article 13 of the Power Purchase Agreement dated 18.01.2010. The effect of change in law has been claimed in regard to the amendment to the Environment (Protection) Rules, 1986 by Ministry of Environment, Forests and Climate Change by way of Environment (Protection) Amendment Rules, 2015 notified on 07.12.2015. PSPCL has denied the same.
- ii. The principle of restoration to the same economic position as claimed by NPL is subject to the above qualification. Further NPL cannot claim relief on any general law of contract or prevalent industry practice. The Guidelines for competitive bidding issued under Section 63 of the Electricity Act, 2003, Request for Proposal and bid documents issued by Punjab State Electricity Board for Nabha Power Limited etc. are matters of record.
- iii. The obligation to comply with the Environmental norms is that of NPL and the same is not subject to any approval of the Commission or reimbursement, if any, of costs by PSPCL. The obligation of PSPCL is under the contract being PPA and NPL cannot avoid or delay its Statutory obligation under law based on any contractual issue with PSPCL. The compensation is payable

under Article 13 only after the expenditure has been incurred and therefore the Petition is premature at this stage. There is no provision in the PPA for grant of in-principle approval before the expenditure has incurred. There cannot be any upward revision in tariff at this stage. Further the compensation, if any, can be claimed and is to be provided only to the extent contemplated in Article 13. The time required for installation of equipment or the cost involved cannot be a reason to seek pre-mature adjudication of the issue by the Commission. Further NPL has not provided any details of the computation of expenditure under each head in the Petition. The Petition is incomplete and cannot be entertained. NPL has claimed the amendment in Environment (Protection) Rules as the Change in Law. However for the change in law, the law as prevailing on the cut-off date for NPL is to be considered, including the requirement for various consents and clearances to be obtained and the conditions imposed therein. NPL was aware as on cut-off date that the project required to obtain various consents and clearances and the Environment Authorities were entitled to impose conditions for such clearances and conditions. Therefore, if the Environmental Clearance or Consents provide for a condition on the operations of the NPL's power project prior to the Amendment to the Rules, then the Amendment is not a change in law since NPL was already subject to the said conditions. The Amendment can be considered a Change in Law only to the extent that it imposes new conditions or makes the existing conditions more stringent.

iv. Accordingly NPL is required to produce all Clearances and Consents given to the NPL's project and specify the conditions/standards as applicable to NPL prior to the Amendment

to enable the Commission to consider the aspect of change in law. If any condition was possible to be imposed in pursuance to an existing environment law prevalent on the cutoff date, there will be no change in law simply because the condition is imposed as stipulations in the environmental consent given. PSPCL contended that NPL is required to place on records the standards prescribed under Environment Protection Rules, 1986 and by Central Pollution Control Board and Punjab Pollution Control Board under Air (Prevention and Control of Pollution) Act, 1981 as on cut-off date and denied the contention of NPL that there were no standards prescribed prior to the Amendment. PSPCL denied that the change in law can be considered as per Article 13.1.1(iv)(c) of the PPA. This is not a change in Environmental Management Plan for the Power Station as contended by NPL. The Amendment to the Environment Protection Rules relates to the following:

- a) Emission Limits for Sulphur Dioxide
 - b) Emission Limits for Nitrogen Oxide
 - c) Emission Limits for Mercury
 - d) Emission of Suspended Particulate Matter
 - e) Quantum of water consumption
- v. NPL has claimed the impact of the Amendment for Installation of Flue Gas Desulphurization equipment (FGD) for reduction in Sulphur Dioxide emission and Selective Non Catalytic Reduction Technology (SCNR) for reduction in Nitrogen Oxide emission. NPL has not made any claim with respect to the alleged reduction in emission limits for Mercury or Suspended Particulate Matter or water consumption. Even as per the Feasibility Report submitted by NPL, NPL is meeting Emission limits for Suspended Particulate, Mercury as well as for water consumption. Further the

Environmental Clearance required the installation of Electro Static Precipitator (ESP) to ensure Particulate Matter emission does not exceed 50 mg/N₃, which is also the new standard. Therefore the contention of NPL that the emission standard for particulate matter was 100 mg/NM₃ is incorrect. The Environmental Clearance required NPL to monitor the emission standards, inter alia, of SO₂ and NO_x and ensure that the same are within prescribed limits. Therefore it is quite possible that NPL was already subject to the said conditions by way of other clearances, consents or standards to meet the same standards as is required to be met now under the amended Rules. Further, NPL is required to place on record actual emissions of both the units as recorded in their Continuous Emission Monitoring System of their plant.

vi. PSPCL further relied on the issues raised in its communications to NPL and requested that NPL be directed to file the enclosures of communications sent by NPL to complete the record. In this regard, it was submitted that the Commission in the case of Talwandi Sabo Power Limited has vide Order dated 16.02.2018 directed TSPL to submit various documents, as under:

“ i) Environmental clearances obtained by TSPL along with copy of the compliance report submitted to Punjab Pollution Control Board (PPCB) at the time of commissioning of the project and the approval given by PPCB. The environmental compliance reports submitted thereafter from time to time to PPCB indicating compliance of various norms / parameters and their acceptance reports as conveyed by PPCB, be also submitted;

ii) Parameters achieved from the time of commissioning vis a vis norms (before January, 2017) and thereafter till January, 2018 as per continuous monitoring system;

iii) The amounts kept in the project for complying with environmental norms as per directive of Ministry of Environment as under:

"(vi) Space provision shall be kept for retrofitting of FGD, if required at a later date.

(xxv) Separate funds should be allocated for implementation of environmental protection measures along with item-wise break-up. These costs should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year-wise expenditure should be reported to the Ministry."

Amounts spent with details and balance, if any;

iv) Copy of communication received from Central Pollution Control Board regarding revised timelines on FGD installation revised to meet environment norms and concurrence of Ministry of Power to the same, if available.

TSPL shall submit the aforesaid information / data within three weeks with a copy to PSPCL. PSPCL may file reply/comments, if any, to the same within next three weeks.

NPL may approach the Commission after receipt of final advice from CEA on all aspects of the matter."

NPL be similarly directed to submit all the requisite information.

vii. The consideration of technology, costs and Feasibility Report as annexed by NPL was not admitted. In this regard, the Central Electricity Authority has written to all Generators seeking information for providing advice on the issue of compliance of Environmental norms. The Commission in the case of Talwandi Sabo Power Limited has passed an Order dated 31.10.2017:

"Both the parties made their respective submissions. TSPL submitted a copy of letter no.44/FGD/UMPP/CEA/2017/ dated 09.10.17 issued by Central Electricity Authority, Ministry of Power, Ultra Mega Power Projects Development Division, Government of India regarding adherence to environmental norms as per Environment (Protection) Amendment Rules 2015 for Thermal Power Stations. In the said letter, TSPL has been requested to provide plant specific unit-wise data for the units where FGD is proposed to be installed. On the basis of analysis of these data, suitable technology for meeting the environment norms

would be suggested by the Central Electricity Authority along with cost implications for implementing the technology. The said letter has been taken on record. NPL may approach the Commission after it has been finally and suitably advised by CEA on all aspects of the matter. A copy of data furnished to CEA may be filed in the Commission and also supplied to PSPCL.”

Further, the Commission has reiterated vide Order dated 16.02.2018 that TSPL may approach the Commission after receipt of final advise by the CEA.

viii. NPL was required to disclose the communications with CEA, Central Government and any other Statutory Authority. Therefore PSPCL did not make any submissions at that time in regard to the implementation suggested by NPL, the cost estimated, the period of shut down etc. and reserves its right to make further submissions once the advice from CEA is received.

ix. NPL has claimed the expenditure on installation of FGD as change in law. This is based on the premise that there was no stipulation or condition for installation of FGD on the cut off date. It is submitted that under Environmental Laws, the Environmental Clearance is required to be obtained for the power project. The Environment Clearance dated 03.10.2008 envisaged the installation of FGD as under:

“(vi) Space provision shall be kept for retrofitting of FGD, if required at a later date.

(xxv) Separate funds should be allocated for implementation of environmental protection measures along with item-wise break-up. These costs should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.”

The contention with regard to the obligations of PSPCL under the RFP or Guidelines to acquire the land/environmental clearance is not relevant in the present case. In any event, the contentions of NPL are not admitted.

x. The issue of installation of FGD as Change in Law as per a similar stipulation as mentioned above was considered by the Hon'ble Appellate Tribunal in M/s JSW Energy Limited v. Maharashtra State Electricity Distribution Co. Ltd and Another dated 21.01.2013 in Appeal No. 105 of 2011. The Environmental Clearance granted to JSW had the similar conditions as the cited above in NPL's Environmental Clearance. The relevant extracts of the decision of the Hon'ble Tribunal are as under:

"9. Before dealing with these questions, it would be better to refer to the relevant chronological events which would disclose the actual background of the case, which are given below:

.....

v) Through these conditions, the Appellant had been communicated that the Appellant may be required to install FGD of required capacity at a later stage and called upon the Appellant to provide the space for installation of FGD of requisite efficiency as well as to allocate funds for implementation of those Environmental protection measures and the cost should be included as part of the Project cost. It also provided that the Appellant should not divert the said funds for any other purpose.....

18. It is true that in the Environmental clearance dated 17.5.2007 in Para-(iii), the Appellant was directed to install the FGD at a later stage if required. However, it was to be noted that there is not only reference relating to identification of the space in the Environmental Clearance but it specifically mandated under Para (xx) that the Appellant should allocate separate funds for implementation of the Environmental protection measures and cost of the same should be included as part of the project cost. It further provided the funds earmarked for the same should not be diverted for any other purpose.

19. According to the Appellant, when the Environmental clearance was issued in favour of the Appellant, the FGD was not foreseen at that stage. As indicated above, the Environmental clearance dated 17.5.2007 of course, provided for installation of FGD at a later stage but it clearly mandated that the cost of the Environmental protection measures must be allocated and the said funds allocated, have to be included in the project cost and the same should not be diverted for any other purpose.

.....
29. On a careful perusal and on a combined reading of relevant clauses of the PPA, the Environmental Clearance dated 17.5.2007 and the letter issued by the Central Government on 16.4.2010, it is clear that there is no change in law as contemplated by the PPA.

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.

.....
35. As mentioned above, the condition No (iii) would mandate that the space provision shall be made for installation of FGD at a later stage. The Para (xx) would also provide that separate funds would be allocated for implementation of these conditions and the said funds should be included as a part of the project cost. Therefore, the specific direction given to the Appellant even in the Environmental clearance would reveal that the Appellant was duty bound to include the fund allocation in the project cost. Admittedly, this was not done.

45. As indicated above, Clause 4.1.1 (a) of the PPA, read with Schedule-I, clearly casts the responsibility on the Appellant to obtain all requisite, consents and approvals. Clause 13 relating to change in law of the PPA has to be

read along with Clause 2.5 of the Schedule 9 of the PPA which relates to the representation and warranties. Therefore, Clause 13 cannot be read in isolation. The change in law contemplated U/S 13 of the PPA is seven (7) days prior to the bid dead line in this case i.e. 14.2.2008.

46. It is a settled law that the terms of a contract have to be read as a whole and cannot be read in isolation. There is no change as sought to be claimed by the Appellant. The mere intimation of the stage for installation of FGD is not a change in law or interpretation of law. We find that prior Environmental clearance granted was conditional and that the entire bid of the Appellant was on the basis of the representation of the Appellant is indicative of the fact that the FGD was required to be installed by the Appellant and the Appellant was well aware of the same.”

The Civil Appeal being No. 2967/2013 filed by JSW Energy Limited against the said order is however pending before the Hon'ble Supreme Court.

xi. The existing clearances require NPL to use coal with Sulphur content of not more than 0.5%. Therefore it is not correct that there were no norms for the Sulphur dioxide. The obligation under the Amendment, if at all to be considered, is to be considered as the measures which are required for reduction from the above emission standards to the new standard of 200 mg/NM³. The Feasibility Report has considered the existing SO₂ emission at 1252/1599 mg/NM³ which has to be reduced to 200 mg/NM³ and has recommended the technology. The Report does not consider the actual emissions as per the emission monitoring data, but estimated emissions. NPL is required to submit the actual emissions.

xii. The Feasibility Report states that the combustion tuning and performance enhancement of existing combustion control technologies can reduce the NO_x by 40% i.e 309 to 405 mg/NM³.

The same is within the control of the NPL and no additional expenditure can be considered in this regard. The combustion technology already exists and NPL is required to maintain it. The Feasibility Report considers SNCR for a reduction of 35%.

xiii. In reference to Water Treatment Plant, NPL has not given any details in this regard, including on the requirement of such water treatment under the new norms.

xiv. In reference to Mechanism for relief, if any, even assuming but not admitting that there is a change in law, it was submitted by PSPCL that the relief is restricted to Article 13 of the PPA. The CEA report needs to be examined and prudence check would be required to ensure that NPL has not incurred unnecessary or imprudent costs or whether there is any increase in auxiliary consumption or operating expenditure which are passed on to the PSPCL and to the consumers of the State. Further as admitted by NPL itself, the estimated cost is not complete and therefore cannot be considered at this stage. There cannot be any claim for the period of shut down of the plant. There is no default of PSPCL which resulted in shut down in the Power Station. Similarly there cannot be any consideration of legal and administrative costs. Further the impact on operational parameters is not admitted. There can be no reduction in the contracted capacity or otherwise any adjustments in the Tariff for such contracted capacity. The Competitive Bid was called for a certain capacity and that cannot be varied. Further NPL is required to install energy efficient machinery.

6. The submissions made by NPL vide Letter/additional affidavit dated 20.03.2018 in compliance of Order dated 09.03.2018 are summarized as under:

i. The Punjab State Electricity Regulatory Commission vide its order dated 09.03.2018 had directed NPL to submit the following details/documents in relation to the compliance with the environmental norms:

a) Environmental clearances obtained by NPL along with copy of the compliance report submitted to Punjab Pollution Control Board (PPCB) at the time of commissioning of the project and the approval given by PPCB. The environmental compliance reports submitted thereafter from time to time to PPCB indicating compliance of various norms / parameters and their acceptance reports as conveyed by PPCB.

b) The amounts kept in the project for complying with environmental norms as per directive of Ministry of Environment and Forests, amounts spent with details and balance, if any;

c) Copy of communication received from Central Pollution Control Board regarding revised timelines on FGD installation to meet revised environment norms and concurrence of Ministry of Power to the same, if available.

ii) In compliance of the directions of the Commission, NPL submitted the copy of environment clearances, copy of consents and authorizations issued by the Punjab Pollution Control Board, copy of the environmental compliance reports / environmental monitoring reports submitted to PPCB since 06.01.2012 till 27.12.2017, copy of the document demonstrating the space provision kept for the retrofitting of the FGD and copy of the documents consisting of the details of the amounts spent towards

the implementation of the environmental protection measures and the balance.

iii) NPL stated that there was no directive from MoEF to keep a separate fund for the installation of FGD, the only requirement was to keep space provision for the same. Further NPL has been submitting the aforesaid reports on a periodical basis to the MoEF & CC since January 2012, giving a detailed break-up of the amount kept for the environmental protection measures. The fact that there is no requirement for keeping a separate fund for the installation of FGD and/or the Selective Non-Catalytic Reduction technology (SNCR) equipment is apparent from the review of these EMPs and from the fact that MOEF & CC has not raised any objections to the same till date. This clearly goes on to show that the MOEF & CC never treated the two conditions stipulated at sr. no. (vi) and (xxv) of NPL's environmental clearance dated 03.10.2008 to mean that NPL was required to allocate any separate fund for installation of FGD and/or SNCR.

7. ★ The Rejoinder filed by NPL to PSPCL's submissions is as under:

i. NPL highlighted the directions issued by the Central Pollution Control Board (CPCB) to NPL vide its letter dated 11.12.2017, by way of which NPL is required to install the Flue Gas Desulphurization system (FGD) for the reduction in the Sulphur dioxide (SO₂) emissions and low Nitrogen oxide (NO_x) burners, Over Fire Air systems (OFA) etc. for the reduction in NO_x emissions respectively by 2019, in order to comply with the new environmental norms brought by the Notification issued by the Ministry of Environment, Forest and Climate Change (MoEF &

CC). Further, the CPCB had also directed NPL to immediately install the Electrostatic Precipitator (ESP) to meet the emission limit of Particulate Matter (PM).

ii. NPL in response to the aforesaid letter issued by the CPCB, vide its letter dated 16.02.2018 informed the CPCB that it has installed the ESP and the additional air low NO_x burners and that it has completed the technical feasibility study for the selection of appropriate technology solution. Further, NPL also informed the CPCB that it has identified wet limestone technology for SO₂ emissions and the Selective Non-Catalytic Reduction technology (SNCR) for NO_x emissions. NPL further stated that, based on the initial feasibility study, a period of thirty six months from the date of award of contract would be required for the implementation of the technology solution finalised and thus, the timelines communicated to it by way of the CPCB's letter dated 11.12.2017 are extremely stringent and not feasible from a technical perspective. In addition to the above, NPL highlighted the following vital aspects in the implementation norms having a significant bearing on the timelines of the phasing plan:

- a) Regulatory approvals required to maintain the financial viability of generating stations;
- b) Financing constraints, particularly in the absence of regulatory approvals; Potential difficulties in sourcing of adequate quantity and quality of limestone reserves over a long-term period on a sustainable basis;
- c) Potential demand-supply mismatch in 100% disposal of the by-product (gypsum) in view of the likely oversupply from thermal power stations; and

d) Potential delays in the land acquisition for the storage of gypsum.

NPL requested the CPCB to reinstate the timelines for the implementation of the revised environmental norms to April 2021 for Unit I and February 2021 for Unit II, as directed by the Central Electricity Authority (CEA), Ministry of Power (MoP) in the backdrop of its meeting with the MoEF & CC. NPL has not received any communication formally from CPCB in this regard.

iii. The Notification regarding installing FGD, SNCR and the other required equipment is a peculiar case of Change in Law which would require grant of advance regulatory approvals. The installation of the FGD and/or the SNCR technology, which are now required in order to comply with the new norms on SO₂ and NO_x emissions, were not included in the extant rules and regulations prevailing at the time of bid submission. The cost of such equipment was not required to be factored at the time of the bid submission. Huge amount of capital expenditure is required to be incurred by the generating companies much after their projects have been commissioned and are in the operational phase. Therefore, the in-principle approval of the project cost by the Commission is crucial for NPL, to enable it to ensure timely implementation of the required measures to comply with the revised norms in terms of the Notification and to avail the requisite financing for the same.

iv. The banks including the public-sector banks as well as the large financial institutions are already having huge exposure to the power sector generating companies which are in financially distressed situations. NPL is already reeling under pressure to service its existing debts in view of the various deductions in the

tariff being made by PSPCL and such issues currently being at various stages of dispute adjudication process. The lenders would require the comfort of a regulatory approval by the Commission to ensure that the cost of installation will be recovered by way of an increase in the tariff under the Change in Law clause and thus, would be repaid to the lenders. The requisite regulatory approval in the form of the in-principle approval of the said Change in Law event and the consequent project cost based on the TCE Report needs to be given by the Commission so that NPL can tie up adequate financing arrangements to ensure the timely availability of funds to implement the technology necessitated by the Notification.

v. Rebutting PSPCL's contention that in principle approval was not necessary, NPL placed reliance on the order of the Hon'ble Tribunal dated 23.04.2014 in Appeal No. 207 of 2012 in the case of Nabha Power Limited vs. Punjab State Power Corporation Limited wherein, the Hon'ble Tribunal had held that the change in the in-principle approval dated 05.11.2008, granted by the Northern Railways *vis a vis* the alignment of the railway siding for the Project, as a result of the revised approval by the competent authority in the Railway, leading to a change in the cost on account of change in the scope of work amounted a Change in Law event, in terms of Article 13.1.1 of the PPA. Further, the Hon'ble Tribunal had remanded the aforesaid matter to this Commission for the determination of the cost implications on account of the said Change in Law event recognized by it. The Commission by way of its Suo- Motu proceedings in Petition No. 28 of 2014 (Suo-Motu), is carrying out the said exercise qua the determination of the cost implications.

vi. Hon'ble CERC vide its order dated 19.12.2017 in the case of DB Power Ltd. vs. PTC India Ltd. & Ors.; order dated 19.12.2017 in the case of DB Power Ltd. vs. TANGEDCO & Ors; and its order dated 21.02.2018 in the case of GMR Kamalanga Energy Ltd. & Anr. vs. Dakshin Haryana Bijli Vitran Nigam Limited & Ors., had granted an in-principle approval by way of recognising a similar notification issued by the MoEF & CC dated 25.01.2016 resulting in the additional cost towards fly ash transportation, as a Change in Law event. The relevant excerpts from the aforesaid orders are set out below:

a) DB Power Ltd. vs PTC India Ltd. & Ors. (Petition No. 101/MP/2017)

“106. As per Article 10.1.1 of the PPA, any enactment, bringing into effect, adoption, promulgation, amendment, modification or repeal, of any law is covered under Change in law if this results in additional recurring/ non-recurring expenditure by the seller or any income to the seller. Since, the additional cost towards fly ash transportation is on account of amendment to the Notification dated 25.1.2016 issued by the Ministry of Environment and Forests, Govt. of India, the expenditure is admissible under the Change in law in principle....”

b) DB Power Ltd. vs. TANGEDCO & Ors. (Petition No. 229/MP/2016)

“97. As per Article 10.1.1 of the PPA, any enactment, bringing into effect, adoption, promulgation, amendment, modification or repeal, of any law is covered under Change in law if this results in additional recurring/ non-recurring expenditure by the seller or any income to the seller. Since, the additional cost towards fly ash transportation is on account of amendment to the Notification dated 25.1.2016 issued by the Ministry of Environment and Forests, Govt. of India, the expenditure is admissible under the Change in law in principle....”

c) GMR-Kamalanga Energy Ltd. & Anr. vs. Dakshin Haryana

Bijli Vitran Nigam Limited & Ors. (Petition No. 131/MP/2016)

“78. In line with the above order, the expenditure claim by NPLs are admissible under the Change in law in-principle and the admissibility of the said claim is subject to the conditions indicated in the said order (as quoted above)....”

vii. In light of the aforementioned orders of the Hon'ble APTEL and CERC, NPL submitted that the Commission is well within its powers to declare that the said Notification amounts to a Change in Law event and thereby grant an in-principle approval of the project cost (i.e. the capital expenditure and operation and maintenance expenditure) based on the TCE report. PSPCL's reference to the Order of the Hon'ble tribunal in M/s JSW Energy Limited vs. Maharashtra State Electricity Distribution Company Ltd & Anr. dated 21.01.2013 in Appeal No. 105 of 2011 (JSW Case) was misplaced. NPL denied that the case in hand is similar to that of the JSW Case. In this regard the following differences between the two cases were brought out.

a) In the JSW Case, the project was awarded under Case 1 of the Competitive Bidding Guidelines read with the model Request for Proposal (RfP) issued by the MoP as a part of the standard bidding documents. Therefore, the bidder i.e. JSW was responsible for the land acquisition and for obtaining the initial consents, including the environmental clearance. In the instant case, wherein the Project has been conceived and awarded under Case 2 Scenario 4, the responsibility of land acquisition and of obtaining the initial consents including the environmental clearance is on the procurer i.e. PSPCL/PSPCL.

b) In the JSW Case, the condition of keeping a space provision for the installation of the FGD equipment was based on the preliminary report of the Konkan Krishi Vidyapith, Dapoli (KKVD).

In view of the sensitivity of the area around the project site, which included alphonso mango plantation and marine fisheries, the impact of sulphur dioxide emissions from the project on such plantation and fisheries were taken into consideration while granting the environmental clearance to JSW, dated 17.05.2007. The said environmental clearance was subject to the condition that a detailed study regarding the impact of the project on the alphonso mango and marine fisheries shall be carried out at the cost of the project proponent and based on the study, the additional safeguards as may be required would be carried out at the cost of the project. In stark contrast to the above, there was no such condition of carrying out a detailed study in the environmental clearance granted to NPL on 03.10.2008 (Environmental Clearance) Further, in the JSW Case, at the time of the submission of the bid, there was a pending litigation in relation to the environmental clearance which was not disclosed to the distribution licensee while the bid documents were submitted. The aforesaid environmental clearance granted to JSW was challenged by way of an appeal before the National Environmental Appellate Authority (NEAA) which was dismissed by the NEAA by way of its order dated 12.09.2008 and the said environmental clearance granted to JSW was upheld. Further, the said order of NEAA dated 12.09.2008 was challenged by way of a Public Interest Litigation (PIL) in Writ Petition (Civil) No. 388 of 2009 before the Hon'ble Delhi High Court.

c) The Hon'ble High Court by way of its order dated 18.09.2009 directed the Expert Appraisal Committee (Thermal) of the MoEF & CC to re-examine the environmental clearance granted to JSW after considering the reports of KKVD. Pursuant to

the abovementioned direction, the said Committee upheld the environmental clearance granted to JSW. In the minutes of the 62nd meeting of the reconstituted Expert Appraisal Committee dated 11.01.2010-12.01.2010, the said Committee had observed that in the future if there was any evidence of damage to the mango, cashew and fisheries, adequate mitigation measures including the installation of FGD system would be adopted by JSW. The environmental clearance dated 17.05.2007 granted to JSW was revised on 16.04.2010 by way of a communication from the MoEF & CC, considering the reports of the KKVD. On the basis of the said reports of the KKVD, the specific condition that the FGD equipment shall be installed before the commissioning of the project, was imposed.

In the instant case, as already highlighted in paragraphs 8-11 of the Petition filed by NPL before this Commission, there were no norms for the installation of the FGD and/or SNCR technology for the reduction in the SO₂ and NO_x emissions, at the time of the submission of the bids. The said emission norms were introduced for the first time by way of the issuance of the Notification by the MoEF & CC dated 07.12.2015.

d) In the JSW Case, the condition of the installation of the FGD system was introduced prior to the commissioning of the project i.e. in the construction period unlike the instant case wherein the condition was imposed post the commissioning of the Project i.e., in the operation period. In addition to the above, the 'Change in Law' clause under the PPA entered into between Maharashtra State Electricity Distribution Company Limited (MSEDCL) and JSW, does not include '*any change in any consents approvals or licenses available or obtained for the project*' unlike the 'Change in

Law' clause under the PPA in the instant case which is inclusive of any change in the consents/approvals/licenses available of obtained for the Project.

viii. NPL stated that PSPCL's insistence on the CEA report in misplaced and the issue of the receipt of advice from the CEA is required to be delinked from the present proceedings wherein NPL is seeking an in-principle approval of the Commission recognising the said Notification as a Change in Law event and consequently, approving the project cost based on the TCE report, though details had been submitted to CEA. NPL reiterated that there was no directive from the MOEF & CC to keep a separate fund for the installation of the FGD equipment, the only requirement was to keep a space provision for the same. And that NPL has been submitting the environmental compliance/monitoring reports on a periodical basis to the MoEF & CC since January 2012, giving a detailed break-up of the amount kept for the environmental protection measures. The fact that there was no requirement for keeping a separate fund for the installation of the FGD and/or the SNCR equipment was apparent from the review of these reports and from the fact that the MOEF & CC has not raised any objections to the same till date. According to NPL this clearly goes to show that the MOEF & CC never treated the two conditions stipulated at sr. no. (vi) and (xxv) of NPL's Environmental Clearance to mean that NPL was required to allocate any separate fund for the installation of FGD and/or SNCR technology. NPL rejected PSPCL's denial of any claim for the period of shut down and any consideration of legal, operational and administrative costs. NPL maintained that this was a change of law and Article 13 of the PPA (and specifically Article 13.2) which deals with 'Change

in Law' provision is in effect a restitutionary provision which is meant to ensure that any actual cost implication on the Project whether positive or negative due to any 'Change in Law' after the cut-off date is neutralized. NPL reiterated its submission on restitution to the same economic portion ,quoting Article 13.2 of the PPA:

ix. NPL submitted that the environmental clearances, which the MoEF & CC was granting in so far as the FGD equipment is concerned, were broadly of two categories, namely, the power projects which were given environmental clearances similar to that of NPL with the condition that *a space provision is to be kept for the installation of the FGD equipment, if required* at a later stage by the MoEF & CC. In the second category of the environmental clearances, the MoEF & CC had specifically mandated the installation of the FGD equipment as a statutory condition. The relevant excerpt from the environmental clearance dated 07.06.2007 granted to one of such power projects i.e. Bongaigaon thermal power plant in Assam is set out herein below:

"..FGD system with 90% sulphur removal efficiency shall be installed, Gypsum generated from FGD plant shall not be disposed in the ash pond.."

x. Thus, wherever the MoEF & CC intended that there should be a statutory mandate on the project developer to install the FGD equipment, the same was clearly and specifically stated and provided for in the environmental clearances granted to such projects. NPL claimed that a project developer cannot be expected to build in such a significant cost as regards the installation of the FGD and/or SNCR system as a part of the capital cost of the Project based on a mere possibility that the FGD and/or SNCR

system might have to be installed at a future date. Assuming if no Notification would have been issued by the MoEF & CC during the term of the Project, then the consumers would have still paid a higher tariff without installation of such equipment. Such a proposition should clearly be rejected as it envisages irrationality.

xi. NPL claimed relief under Article 13 of the PPA and has stated that it was not precluded from raising any claim qua general law of contract or prevalent industry practice as may be applicable. Further, as the PPA is a commercial contract, any dispute under the said PPA has to be adjudicated upon, keeping in view the general principles of law which are applicable to a commercial contract. Further, the PPA uses the term 'Prudent Utility Practices', and therefore, prevalent and prudent industry practices wherever relevant are required to be relied upon.

xii. Without trying to delay or avoid compliance, NPL reiterated that the obligation of obtaining the environmental clearance and the acquisition of the land for the Project was that of PSPCL / PSPCL, considering the present Project was conceived and awarded under the Case 2 Scenario 4 of the Competitive Bidding Guidelines read with the model RfP issued by the MoP as a part of the standard bidding documents.

xiii. It was reiterated that the instant case is a peculiar one wherein huge amount of capital expenditure is required to be incurred by the generating companies much after their projects have commissioned and are in the operational phase and therefore, the in-principle approval of the project cost by the Commission is crucial for these generating companies including NPL, to enable them to ensure timely implementation of the

required measures to comply with the revised norms in terms of the Notification and to avail the requisite financing for the same.

xiv. NPL submitted in its Petition that there were no norms for SO₂ and NO_x emissions under the Environment (Protection) Act, 1986 (1986 Act) and the Environment (Protection) Rules, 1986 (1986 Rules) until the issuance of the Notification, which introduced such emission standards for the first time. It was submitted that the onus was on PSPCL to prove that there were emission norms prescribed *vis a vis* the emission limits for SO₂ and NO_x prior to the issuance of the Notification. The FGD system and the SNCR technology which are now required in order to comply with the new norms on SO₂ and NO_x emissions were not included in the extant rules and regulations prevailing at the time of the bid submission and therefore the Notification falls within the ambit of a Change in Law event in terms of Article 13 of the PPA. The simple test that is required to be followed is whether there are new conditions mandated to be followed by NPL on account of the issuance of Notification which were not stipulated earlier and if it is so, such new amendment is definitely a Change in Law under Article 13.1.1 of the PPA.

xv. The notification issued by the MoEF & CC has no impact on the environmental management plan for the power station as per Article 13.1.1(iv)(c) of the PPA. It was reiterated that NPL has been submitting the environmental compliance/monitoring reports (which provides details *vis a vis* the implementation of the environmental management plan) on a periodical basis to the MoEF & CC since January 2012, giving a detailed break-up of the amount kept for the environmental protection measures and that no separate fund was ever earmarked for the purpose of installation of FGD

equipment or the SNCR technology. It was submitted that there is going to be change in the environmental management plan in terms of Article 13.1.1(iv)(c) of the PPA as the said Notification by necessary implication amends/ alters the existing environmental management plan and therefore alters the cost of implementing the environmental management plan for the power station.

xvi. NPL has not made any claim with respect to the alleged reduction in emission limits for mercury, suspended particulate matter and water consumption as NPL had installed the requisite technology/equipment in terms of the Environmental Clearance and therefore, was already in compliance with the emission limits/norms for mercury, suspended particulate matter and water consumption respectively. NPL has not made any claim of Change in Law in relation to the aforesaid constituents.

xvii. PSPCL has contended that NPL was already required to monitor the emission standards *inter alia* of SO₂ and NO_x and keep them within the prescribed limits in terms of other clearances/consents and therefore, it is quite possible that NPL was already subject to the said standards as are required to be met now under the Notification. It was reiterated that in terms of the extant rules and regulations at the time of bid submission, there were no norms for SO₂ and NO_x emissions information has already been submitted. As far as the parameter of particulate matter is concerned, NPL regretted an inadvertent mistake in its submissions regarding the 1986 Rules, that the norm for particulate matter was 100 mg/NM³, however, it actually was 150 mg/NM³. However this has no adverse bearing on NPL's claim of Change in Law in the present case as NPL has not claimed any Change in Law w.r.t to the installation of the ESP for the

compliance with the emission limits for particulate matter. It was further submitted that NPL, in terms of paragraph 3 (v) of its Environmental Clearance, had installed the ESPs to meet the emission limit of 50 mg/NM³. As the Notification has also laid down the same emission limit of 50 mg/NM³ for particulate matter, therefore, NPL has not made any claim of Change in Law in this regard. Further, as per the Environmental Clearance granted to NPL, it was only required to monitor the emission standards of SO₂ and NO_x, and there was no prescribed limit for the emissions (as has been falsely alleged by PSPCL). NPL has a continuous emission monitoring system for SO₂ and NO_x online and the same is accessible by the PPCB.

xviii. According to NPL, the condition of keeping a space provision for FGD in the environmental clearance granted to NPL was to ensure seamless compliance with any future environmental norms in this regard. The installation of FGD and SNCR system was not required to be complied with by NPL at the time of the submission of the bid, as the 1986 Rules based upon which the clearance of the MoEF & CC was granted did not envisage any such equipment to be installed. Accordingly, NPL was not required to factor such costs of FGD and SNCR in the capital cost of the Project.

xix. The reliance of PSPCL on the Sulphur content of coal being not more than 0.5% does not explain the position qua the stipulation of SO₂ emission standards as on the cut-off date of 02.10.2009. Further, the condition relates to the quality of the coal to be used and not the emission levels of SO₂. It was specifically denied that the CEA's final advice has any bearing on deciding the question of 'Change in Law' and thereby granting a prior in-principle approval for the Project cost on account of the

Notification. It was reiterated that the Hon'ble APTEL and the Hon'ble CERC vide their orders as mentioned earlier, had allowed the expenditure claimed by NPL in the said cases on account of a 'Change in Law' event, in principle and therefore, a similar prior approval of the Commission was necessary to enable NPL to meet the deadline for the implementation of the Notification. It was reiterated that the installation and commissioning of the aforementioned equipment viz. the FGD system and the SNCR technology will have an impact on the operational parameters such as the Station Heat Rate as well as the Auxiliary Power Consumption etc. Further, the Plant of NPL would remain under shutdown during the period of installation and commissioning of the above equipment. These would also lead to a loss of revenue and increase in expenditure for NPL and therefore it has to be compensated for the increase in both, the capital expenditure as well as the operating expenditure, since the additional expenditure under both the categories is to be incurred as a result of the issuance of the Notification by the MoEF & CC. The intent and purpose of the Change in Law clause in the PPA is to restore the affected party to the same economic position as if the said Change in Law had not occurred. The same is only possible if NPL is compensated for both the capital as well as operational expenditure incurred due to the installation and operation of the various emission reduction equipment.

8. The written submissions made by PSPCL vide Memo No. 6685 dated 19.04.2018 are summarized as under:

- i. NPL has claimed the changes only in terms of the following:

a) The Emission Norms related to Sulphur Dioxide (SO₂) and the installation of FGD; and

b) The Emission Norms related to Nitrogen Oxide (NO_x) and the installation of SNCR.

ii. The issues raised by NPL in the petition have to be considered with reference to the specific provisions of Article 13 in the PPA. Further relief, if any, is to the extent contemplated in the said Article 13. The principle of restoration to the same economic position, as claimed by NPL is subject to the above qualification. Further, NPL cannot claim relief on any general law of contract or prevalent industry practice.

iii. There is no provision in the PPA for grant of an in-principle approval before the expenditure has been incurred. There cannot be any upward revision in tariff at this stage. The compensation, if any, is also payable under Article 13 only after the expenditure has been incurred. The claim of NPL, based on project cost of a feasibility report cannot be accepted. NPL cannot seek in-principle approval of an estimated project cost. Therefore, the petition is premature at this stage. The relief is admissible only after the actual expenditure. The very recognition of change in law requires the expenditure to have incurred. Article 13.1.1 recognizes as change in law only those events, which affect the cost and revenue from business of selling electricity. Therefore, unless there is an impact on cost or revenue, there can be no change in law. It was submitted that the judgment of the Hon'ble Tribunal relied on by NPL in the rejoinder on the concept of in-principle approval does not specifically deal with the issue of whether such in-principle approval can be granted under the PPA. There is no discussion or consideration on the maintainability of such in-principle approval

under the PPA provision dealing with the change in law. However, in the present case, it has been specifically disputed that such in-principle approvals for change in law are not envisaged in the PPA. It is well settled principle that a decision is an authority for what it actually decides and not what can be logically deduced therefrom. In this regard, PSPCL relies on the decision of the Hon'ble Supreme Court in State of Haryana v. Ranbir @ Rana (2006) 5 SCC 167)

iv. Similarly, the judgments of the Central Commission do not consider the specific issue of whether the in-principle approval can be considered as per the change in law provisions of the PPA. In any event, the decisions of the Central Commission are not binding on the Commission. The judgment passed by the Central Commission on 28.03.2018 in the case of Adani Power Limited, as relied on by NPL, also dealt with the change in law once the expenditure had already been incurred. The time required for installation of equipment or the cost involved cannot be a reason to seek pre-mature adjudication of the issue by the Commission. The alleged financial constraints faced by the NPL in the absence of regulatory approvals are also not acceptable. The obligation to comply with the Environmental norms is that of NPL and the same is not subject to any approval of the Commission or reimbursement, if any, of costs by PSPCL. The obligation of PSPCL, if any, is under the contract i.e. the PPA and NPL cannot avoid or delay its statutory obligation under the law, based on any contractual issue with PSPCL. NPL cannot use the pendency of the present proceedings to avoid its obligations under the Environmental Laws.

v. NPL has not provided any details of the computation of expenditure under each head in the Petition. The Petition is incomplete and cannot be entertained. The compensation, if any, can be claimed and is to be provided only to the extent as contemplated in Article 13.

vi. NPL has claimed the amendment in Environment (Protection) Rules as the Change in Law. However, for the change in law provision, the law as prevailing on the cutoff date for NPL is to be considered, including the requirement for various consents and clearances to be obtained and the conditions imposed therein. NPL was aware, as on the cutoff date that the project required to obtain various consents and clearances and the Environment Authorities were entitled to impose conditions for such clearances and conditions. Therefore, to the extent that the Environment Clearance or Consents provide for a condition on the operations of the NPL's power project prior to the Amendment to the Rules, then to that extent, the Amendment is not a change in law since NPL was already subject to the said conditions. The Amendment can be considered a Change in Law only to the extent that it imposes new conditions or makes the existing conditions more stringent. For example, the Environment Clearance required the installation of ESP to ensure Particular Matter emission does not exceed 50 mg/N3, which conforms to the norms set in the Amendment to the Environment (Protection) Rules. This is also admitted by NPL. Similarly, the Environment Clearance also provides for cooling towers, which is the requirement under the new norms. Further, the Environment Clearance required NPL to monitor the emission standards, inter alia, of SO₂ and NO_x and ensure that the same are within prescribed limits. The National Ambient Air Quality

Standards had also prescribed emission norms for the area. Therefore, it is quite possible that NPL was already subject to the said conditions by way of other clearances, consents or standards to meet the same standards as is required to be met now under the amended Rules.

vii. The effect of any change in law subsequent to the cutoff date is restricted to the incremental cost or additional expenditure on installation or upgradation of the plant and equipment to be installed by reason of change in law over and above the expenditure which was in any event required to be incurred even in the absence of such change in law and not for the entire capital expenditure.

viii. NPL is seeking in-principle approval of change in law at this stage. Even assuming but not admitting that the in-principle approval of change in law can be considered, there cannot be any consideration of impact of the change in law such as the technology to be adopted or estimated costs etc. The same cannot be approved at this stage.

ix. This is particularly so when the Central Electricity Authority has written to all generators seeking information for providing advice. There cannot be any such approval of estimated project cost or technology recommended in the Feasibility Report particularly, when the CEA is still examining the issue.

x. It was stated that the data for emissions of SO₂ and NO_x submitted by NPL have been considered differently in the Feasibility Report; as per the Continuous Emission Monitoring System (CEMS); as per the Test Reports for Stack Emissions and as per what has been submitted to CEA. In the Information submitted to CEA, NPL has stated that the yearly SO_x for the

years 2014-15 to 2016-17 is 1800 and for 10 months of year 2017-18 is 2000 mg/NM3. This is the data on the basis of which CEA would give its recommendations. However, this data is clearly contradictory to the actual emissions data as well as the data considered in the Feasibility Report:

a) As per the CEMS Unit 1, the yearly average is 352.5 mg/NM3 (2014-15), 1089.9 mg/NM3 (2015-16), 1322.1 mg/NM3 (2016-17) and 1303.54 (April 2017 to August 2017) and ranging from a minimum of 12.2 mg/NM3 to maximum of 1536.7 mg/NM3

b) As per CEMS Unit 2, the yearly average is 1606.2 mg/NM3 (2014-15), 1123.4 mg/NM3 (2015-16), 1308.1 mg/NM3 (2016-17) and 1377.58 (April 2017 to August 2017) and ranging from a minimum of 108.7 mg/NM3 to 1761.9 mg/NM3.

c) The Boiler Stack emissions for Unit 1 range from a minimum of 472.7 mg/NM3 to 1381 mg/NM3 wherein all but two entries are under 850 mg/NM3.

d) The Boiler Stack emissions for Unit 2 range from a minimum of 512.1 mg/NM3 to 1418.6 mg/NM3 wherein all but three entries are under 900 mg/NM3.

e) The Test Reports from Eco Laboratories & Consultants Pvt. Ltd for Stack Emission mention SO₂ as 285.63 and 305.62 mg/NM3 (16.09.2016); 295.14 and 312.62 mg/NM3 (28.06.2016); 272.27 and 298.15 mg/NM3 (15.03.2016); 396.08 mg/NM3 (25.09.2015); 165.28 and 179.04 mg/NM3 (10.06.2015 and 11.06.2015); 205.21 and 225.25 mg/NM3 (28.03.2015); 196.6 and 220.12 mg/NM3 (09.12.2014 and 19.12.2014); 240.9 and 213.7 mg/NM3 (26.09.2014) AND 257 and 221 ppm (26.06.2017); 483 and 496 ppm (18.03.2017); 449 ppm (14.01.2017); 450 ppm (08.12.2016).

f) The Feasibility Report has considered the estimated predictive SO₂ emission at 1252mg/NM³ (for design coal) and 1599 mg/NM³ (for worst coal). It was pointed out that the feasibility report has taken estimated predictive SO₂ emission instead of actual emission values of the plant.

xi. There is no record of emission at 1800 mg/NM³, let alone 2000 mg/NM³. Thus, it is not clear on what basis the data was sent to CEA. The recommendation of CEA would be therefore based on higher emissions than actual or even considered in the Feasibility Report. This can affect the selection of technology for FGD, its size, capacity and consequently cost. Further, there is no explanation for such variation in the emission. If it is possible for NPL to achieve emissions at under 800 mg/NM³ and even under 300 mg/NM³, then there is no reason for emissions to be higher than 1200 mg/NM³. It is also not clear how the emissions as per CEMS are so much higher than other data. PSPCL sought directions to NPL to submit the Report from the CEMS Server regarding the CEMS instead of the tabulation.

xii. In the Information submitted to CEA based on which CEA will give its recommendation, NPL has stated the yearly NO_x for the years 2014-15 to 2017-18 as 450 mg/NM³. This data is clearly contradictory to the actual emissions data:

a) As per the CEMS Unit 1, the yearly average is 178.4 mg/NM³ (2014-15), 251.4 mg/NM³ (2015-16), 326.2 mg/NM³ (2016-17) and 349.64 (April 2017 to August 2017) and ranging from a minimum of 36.5 mg/NM³ to maximum of 450.0 mg/NM³

b) As per the CEMS Unit 2, the yearly average is 503 mg/NM³ (2014-15), 319.5 mg/NM³ (2015-16), 411.9 mg/NM³ (2016-17)

and 334.7 (April 2017 to August 2017) and ranging from a minimum of 28 mg/NM³ to maximum of 638.6 mg/NM³.

c) The Boiler Stack emissions for Unit 1 ranges from minimum of 97.82 mg/NM³ to 510.20 mg/NM³

d) The Boiler Stack emissions for Unit 2 ranges from minimum of 210.7 mg/NM³ to 526.6 mg/NM³

e) The Test Reports from Eco Laboratories & Consultants Pvt Ltd for Stack Emission mention NO_x as 175.36 and 188.29 mg/NM³ (16.09.2016); 188.14 and 190.16 mg/NM³ (28.06.2016); 184.06 and 196.58 mg/NM³ (15.03.2016); 211.86 mg/NM³ (25.09.2015); 47.74 and 102.84 mg/NM³ (10.06.2015 and 11.06.2015); 128.85 and 145.07 mg/NM³ (28.03.2015); 119.67 and 140.8 mg/NM³ (09.12.2014 and 19.12.2014); 151.3 and 213.8 mg/NM³ (26.09.2014) AND 210 and 250 ppm (26.06.2017); 249 and 257 ppm (18.03.2017); 230 ppm (14.01.2017); 235 ppm (08.12.2016)

f) The Feasibility Report states that as per input of NPL, the actual emissions are 205 to 430 mg/NM³ though it has taken estimated tentative NO_x emission as 515 mg/NM³ (for design coal) and 560 mg/NM³ (for worst coal). It was pointed out by PSPCL that the feasibility report has taken estimated tentative values of NO_x emission instead of actual emission of the plant.

xiii. The recommendation of CEA would be therefore based on higher emissions than actual which would affect the advice by CEA. There is also no explanation for such variation in NO_x. If it is possible for NPL to control the emission to within 300 mg/NM³, it may not need any additional equipment and even if NPL can control it close to 300 mg/NM³, there may not be any need for SNCR or even if SNCR is required, the capacity can be reduced.

NPL is required to provide an explanation for the variation in the emission. As per the Feasibility Report, the part load operation would affect the NO_x by 20%.

xiv. PSPCL reiterated its arguments quoting the JSW case and APTEL's judgment and submitted that the ratio of the judgment is that when the Environment 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 the subsequent communication is merely a confirmation of the requirement. PSPCL argued that the various distinguishing features sought to be raised by NPL do not impact the above basic finding of the Hon'ble Tribunal:

a) The award of project being under Case 1 or Case 2 of Competitive bidding guidelines have no relevance. What is relevant is the conditions envisaged in the Environment Clearance. The Hon'ble Tribunal has specifically held that the requirement of FGD was already envisaged in the Environment Clearance which provided for space for such FGD and funds to be allocated – similar to the case of NPL.

b) The requirement of space provision for installation of FGD was not necessarily linked to the additional study to be carried out. If the above contention of NPL is accepted, then there should have been no such requirement in the NPL's Environment Clearance as there was no issue of plantation or marine fisheries. The Hon'ble Tribunal had considered the fact that the requirement of space for FGD and funds to be earmarked meant that the FGD had already been envisaged.

c) The issue of non disclosure of the pending litigation was not considered by the Hon'ble Tribunal and therefore is not relevant,

d) The proceedings against the Environment Clearance or the additional study being carried out in the case of JSW, does not change the premise of the Hon'ble Tribunal's decision that the original Environment Clearance by requiring the space for installation of FGD and earmarking of funds, had already envisaged the requirement of FGD and the installation of FGD subsequently is not a change in law. It is not open for NPL to argue that there was no requirement of installation of FGD when the Environment Clearance specifically required that the space for FGD be provided. There would have been no need for provision of space for installation of FGD if the requirement had not been envisaged.

e) The requirement of FGD prior to or after commissioning of the Power project has no relevance to whether such requirement is a change in law as per the PPA or not.

f) The alleged difference in the Change in Law clauses of PPA between JSW and MSEDCL and the PPA between NPL and PSPCL is not relevant. The Hon'ble Tribunal in JSW Case had not rejected the claim of change in law on the basis that the change in consents were not recognized under Change in Law. In fact the Hon'ble Tribunal has compared the two Environment Clearances of JSW and held that there is no change.

xv. NPL by pointing out certain distinguishing facts cannot seek to ignore the principles laid down by the Hon'ble Tribunal. The Hon'ble Tribunal has repeatedly recognized that the provision of requirement of space for installation of FGD at a later stage and the earmarking of funds for environmental measures means that

the original Environment Clearance had already envisaged the FGD and therefore, the requirement of installation of FGD at a later stage is not a change in law. The reasoning of the Hon'ble Tribunal would have survived even without the alleged distinguishing facts of JSW as relied on by NPL. NPL has contended that it has not provided for funds for FGD in the Funds earmarked for implementation of Environment Protection measures and further sought to submit that such non provision justifies its claim that the FGD was not envisaged in the original Environment Clearance. Thus NPL is seeking to take advantage of its own wrong in not providing for funds required under the Environment Clearance. It is the obligation of NPL to comply with the terms and conditions of the Environment Clearance and any failure on part of NPL to do so cannot be a reason to claim that such condition was not part of the Environment Clearance.

xvi. The contention of NPL that there was no directive from the MOEF or any other authority to keep a separate fund for the installation of FGD equipment is contrary to the decision of the Hon'ble Tribunal in JSW case. In that case also, JSW had not allocated the funds for FGD. However that does not change the fact that the Environment Clearance provided for such requirement. Merely because no objection was raised by MoEF does not mean that the Environment Clearance did not provide for the same.

xvii. NPL has relied on the decision of the Central Commission in Adani Power Limited case mentioned supra wherein the Central Commission has allowed the installation of FGD as change in law. While mentioning that the decisions of the Central Commission are not binding on the Commission, PSPCL stated that, the case of

Adani Power Limited was different since the original Environment Clearance issued to Adani Power Limited provided for the installation of FGD and the same was subsequent to the cutoff date. The issue of FGD being already envisaged in the Environment Clearance prior to the cutoff date was not in issue as in the present case and the case of JSW. The Central Commission had distinguished the decision of the Hon'ble Tribunal on this specific point as under:

“36. In the case of JSW, the MOE&F granted EC to JSW on 17.5.2007, subject to various conditions and one of the conditions was provision of space for installation of FGD system for removal of SO₂, if required at a later stage and for allocation of separate funds for implementation of environmental protection measures. Thereafter, at the final stage of commissioning of the project of JSW, the MOE&F by letter dated 16.4.2010 imposed a condition that FGD system should be installed before the commissioning of the said project within a period of 23 months and conveyed its EC for the project, subject to compliance of safeguards and conditions mentioned in the said letter. MERC and Tribunal had rejected the claim of JSW on the ground that there was no change in law under Article 13 of the PPA, since the letter dated 16.4.2010 issued by MOE&F merely confirmed the requirement of installation of FGD intimated through letter dated 17.5.2007. The findings of the Tribunal in the case of JSW is that the EC dated 16.4.2010 is a mere confirmation of the earlier EC dated 17.5.2007 which is apparently based on the fact that the EC granted by MOE&F to JSW on 16.4.2010 makes reference of the EC granted by letter dated 17.5.2007 where there was a direction to make provisions for space for FGD. In the present case of NPL, the EC granted by MOE&F on 20.5.2010 for Phase III was independent of the ECs granted by MOE&F on 13.8.2007 and 21.10.2008 respectively for Phases I and II of the project. However, in case of Phase III, there was no prior EC as in case of JSW and EC dated 20.5.2010 was granted by MOE&F at the first instance mandating the installation of FGD. The case of JSW is therefore distinguishable from the present case of NPL and hence the judgment of the Tribunal dated 21.1.2013 cannot be

made applicable in case of NPL as contended by PSPCLs/M/s Prayas.”

xviii. Therefore the reason for the Central Commission to distinguish the decision of the Hon'ble Tribunal in JSW Case is not applicable in the present case and the reliance on the said decision of Central Commission by NPL is misconceived. It was also submitted that the existing clearances require NPL to use coal with sulphur content of not more than 0.5% and 34% ash. The sulphur content in the coal has a direct implication on the emissions of sulphur dioxide by the power project. This has also been stated in the Feasibility Report submitted by NPL itself. Therefore it is not correct that there were no norms for the sulphur dioxide. The obligation under the Amendment, if at all to be considered, is to be considered as the measures which are required for reduction from the above emission standards to the new standard of 200 mg/NM³.

The Feasibility Report has considered the existing SO₂ emission at 1252 to 1599 mg/NM³ which has to be reduced to 200 mg/NM³ and has recommended the technology. The Report does not consider the actual emissions as per the monitoring data but estimated emissions. This is also clear from the Rejoinder filed by NPL itself which states that the Feasibility Report considers value of NO_x on a formula of 6% O₂ dry basis of flue gas. The measures have to be considered based on actual emissions subject to a ceiling of the design coal. The actual emission data available with PSPCL show that the actual emissions are much less. Further the range of emissions for SO₂ is varying greatly and there is no justification for the same. PSPCL did not comment on the report as the advice and comments of the CEA are awaited.

xix. The Feasibility Report states that with combustion control technologies of existing Low NO_x burners and regulated supply of optimal amount of excess air through COFA ports, there can be a reduction of 40%. Further the first step indicated is to restrict uncontrolled NO_x generation at the combustion zone of the boiler by combustion tuning and performance enhancement of combustion control technologies. The same is within the control of the NPL and no additional expenditure can be considered in this regard. The combustion technology already exists and NPL is required to maintain it. The Letter dated 11.12.2017 from the CPCB relied on by NPL only refers installation of low NO_x burners etc and not the installation of SNCR. The Feasibility Report proceeds on the basis of 515 mg/NM³ to 560 mg/NM³ and through tuning and performance enhancement of existing combustion control technologies can reduce the NO_x by 40% i.e. 309 to 405 mg/NM³ (309 for the design coal and 336 for worst coal at full load and 371 to 405 at partial load). The Feasibility Report also states that the actual measured emissions are in the range of 205 to 430 mg/NM³ during operations based on the inputs received by NPL. The actual emissions as submitted by NPL are also lower than the claim in the Feasibility Report. Thus with proper combustion control, the emissions can be reduced by 40% i.e. in the range of 123 to 258 mg/NM³. NPL has not established that the SNCR is the only technology to ensure the compliance of NO_x emission norms. Even assuming but not admitting SNCR is required, the same would not be required for a capacity of 35%.

xx. NPL has referred to the requirement of the water treatment plant and has stated that the same is part of EPC package related

to FGD. The said water treatment plant is not provided under the new norms. Since there were no details PSPCL did not comment.

xxi. PSPCL reiterated that the relief is restricted to Article 13 of the PPA which only provides for the impact on cost. There cannot be any claim for the period of shut down of the plant since there is no default of PSPCL which resulted in shut down in the Power Station nor can there be a claim for legal and administrative expenses involved. PSPCL stated that the feasibility report submitted by NPL could not be relied upon and the CEA report should be awaited. The terms of the PPA regarding operational parameters and contracted capacity and tariff cannot be adjusted.

xxii. The Commission vide Order dated 06.04.2018 had directed PSPCL to submit details of SO₂ and NO_x etc. emissions as submitted by NPL to PSPCL from time to time and check from local MoEF office in Chandigarh regarding any observations made by MoEF on the environmental compliance reports filed by NPL from time to time since the SO₂ and NO_x emission levels are quite high in the submissions made by NPL. On enquiry, it was informed by both offices that no communications were issued by these offices to NPL with regard to the SO₂ or NO_x emissions.

9. During the hearing on 16.05.2018, PSPCL pointed out that NPL has given the SO₂ level as 1800/2000Nm³ in the data which was submitted to CEA while seeking recommendations of CEA on technological aspects of FGD installation, whereas the same is in the range of 1536/1700Nm³ in the data submitted to PSPCL. The Commission vide Order dated 18.05.2018 directed NPL to resubmit the data to CEA and PSPCL after making the necessary corrections and to inform the Commission about the same.

Secondly to submit the comparative statement/ report of data which was submitted earlier and the revised data which is to be submitted to CEA. Thirdly, NPL has to file the recommendations of CEA regarding installation of FGD/compliance of environmental norms immediately after issuance of the same by CEA.

10. Submissions made by PSPCL, in pursuance to the Order dated 18.05.2018 vide Memo No. 5099 dated 15.06.2018 are summarized as under:

- i. During hearing on 16.05.2018, NPL restricted its case for presenting only the in-principle approval regarding the change in law and did not press for any in-principle approval of project costs. With regard to the costs now projected, including by NPL's parent company, these are much lower than the projected costs in the Feasibility Report submitted by NPL in its Petition.
- ii. Reiterating its statement that NPL had submitted higher data than actual to CEA and that this would adversely affect the selection of technology & cost of FGD, PSPCL argued that when NPL submitted the data to PSPCL, it did not qualify that these were related to partial load/boiler shut down and therefore were on the lower side. Further, it was not possible that NPL would test the emissions only during the times of partial load/boiler shut down knowing that such data would reflect lower emissions. This is particularly when the data is being submitted at the time of considering the issue of change in law in view of the environment norms of 2015.
- iii. There was a substantial variation between the NO_x for Unit 1 and Unit 2 as per the Graph submitted by NPL. There is no explanation for such great variation.

iv. NO_x emissions can be controlled by various measures and can be reduced upto 40% with existing equipment (as per feasibility report). Even assuming 450 mg/NM³ as submitted by NPL to CEA (though the data demonstrates much lower emissions), this would mean that it can be reduced to 270 mg/NM³ i.e. less than the norms of 300 mg/NM³.

v. NPL had also contended that the emissions data submitted to CEA were with a margin. PSPCL stated that this was an afterthought and erroneous. The CEA had sought the actual emissions and not emissions with margin. If it was felt necessary to provide for a margin, the same would be considered by the CEA and this Commission. Such submission of data by NPL may result in margins being considered twice over resulting in higher costs.

11. The submissions made by NPL in reply to the written submission dated 15.06.2018 filed by PSPCL, are summarized as under:

i. NPL's response to PSPCL's rejoinder that NPL had submitted data to CEA that was substantially higher than actual, was that in the absence of any specific instruction/direction from the CEA qua the submissions of average values of flue gases such as SO₂ and NO_x, NPL submitted the peak values of the said flue gases while submitting the required data to the CEA. This was also primarily on account of the fact that in the format provided by CEA, there was a limitation of providing only one value against a particular year. The value of 1800 mg/Nm³ or 2000 mg/Nm³ can be viewed on the Distributed Control System (DCS) which captures the real time surge in emission values of flue gases. In contrast to this, the CEMS records the hourly average data and

therefore, does not reflect the sporadic surge in emission value. Such sudden surge in emission values can occur on account of sudden change in the operating conditions such as load fluctuation, change in blend of coal which is not homogenous mixture i.e., blend of imported coal and domestic coal being fired contains higher percentage of imported coal which has higher sulphur content. Therefore, NPL by way of abundant caution had highlighted the peak values captured in the DCS so that the systems of FGD and Selective Non-Catalytic Reduction technology (SNCR) are always capable of complying with the stricter norms stipulated by the Ministry of Environment, Forest and Climate Change (MoEF & CC) in the notification dated 07.12.2015 (Notification). The intent and objective of NPL was to be compliant in all scenarios even in the instances involving sporadic higher emissions.

ii. NPL also stated that on the directions of the Commission dated 18.05.2018, NPL had re-submitted the required details/data to the CEA *inter alia* without highlighting the peak values of SO₂ and NO_x emissions respectively. The earlier peak values submitted which were due to excursions during load change or any other operational change were discarded and the present value submitted as compiled from the maximum hourly average value for the month after re-verification of historical data.

iii. The cost of retrofitting FGD for the Project will be discovered by NPL through open competitive bidding in consultation with PSPCL. In the event the Commission grants its in-principle approval recognising the notification dated 07.12.2015 (Notification) issued by the Ministry of Environment, Forest and Climate Change (MoEF & CC) as a Change in Law event, NPL will

claim the pass through of such costs incurred by it in compliance with the Notification.

iv. It was submitted that the test reports for the stack emission gives the instantaneous value for the sample collected at different periods and which are tested offline in laboratory. As highlighted to the Commission, the level of SO₂ generation is directly proportional to the load at which Plant operates and therefore, abnormal minimal values get recorded during boiler shutdowns or start-up, low load operations etc. Further, with respect to PSPCL's contention that NPL had submitted 1800-2000 mg/nm³ to the CEA for SO₂ emissions which is not reflected at all in any of the data, NPL submitted that aforesaid value was observed in the DCS which records real time surge whereas the CEMS records the hourly average data and therefore, does not reflect the sporadic surge in emission value of flue gases. The contention of PSPCL qua there being no explanation for the variation between the NO_x for Unit 1 and Unit 2 was specifically denied. NPL maintained that the level of NO_x emission is quite likely to vary from the theoretical values due to the varying operating conditions at part load. The variation to be not more than 20 % is based upon the chemical reaction analysis. However, in actual condition it can be more due to excess air requirement at different load conditions and due to change in fuel characteristics. In this regard, it was again submitted that the emission norms of the Notification with respect to NO_x cannot be achieved by the existing combustion control technologies even after suitable combustion tuning, optimization and LEA supply and the readings are the actual recordings of these technologies in operation. NPL strongly contended that SNCR is the only prevalent and proven technology to comply with

the NO_x emission norms in the Notification on a retrofit basis as is the case in NPL.

The low NO_x burner with Over fire assembly already installed by Original Equipment Manufacturer (OEM) in the boiler does not reduce NO_x level within the stipulated requirement within the operating load range and this has been clearly mentioned in the TCE report. The range of NO_x mentioned is after abatement by low NO_x burner with Over fire assembly provided by OEM. NPL referred to the feasibility Report which states that the permissible limit of 300 mg/Nm³ would not be achievable at part and full load operations, with combustion control technologies alone. To achieve the desired limit at all loads with the given range of coal allocated for the Project, SNCR technology with a minimum designed reduction efficiency of 35% is recommended. Even otherwise, the range of 336 to 405 mg/Nm³ is non-compliant with the prescribed limit of 300 mg/Nm³. The relevant portion of the TCE Report is set out herein below:

“.. 17.0 Thus, the permissible limit of 300 mg/Nm³ (6% O₂, dry basis) would not be achievable at part and full load operations for the specified coals, with combustion control technologies alone, even after suitable combustion tuning, optimization and LEA supply. Hence, to achieve the desired limit at all loads with the given range of coals, SNCR technology with a minimum designed reduction efficiency of 35% is recommended...”

NPL stated that PSPCL is reading the TCE report selectively and in isolation and has failed to appreciate that the MoEF & CC has introduced stricter emission norms for the purpose of strictly implementing such norms and accordingly, NPL cannot to rely only on the low NO_x burners to control the NO_x emission when it is clear that at part load with worst coal design, the likely NO_x

emissions of 336 to 405 mg/Nm³ will be significantly beyond the stipulated norm of 300 mg/Nm³. NPL stated that it cannot bear the risks associated with non-compliance of the MoEF & CC's Notification on account of PSPCL's insistence to not allow setting up of SNCR System. NPL has reiterated that the emission norms of NO_x cannot be met by adopting the so-called reduction technology being suggested by PSPCL and this would require the installation of the SNCR System. SNCR with reduction efficiency of 35%, the most feasible retrofitted technology is recommended by TCE for NPL to reduce the NO_x level for all the operating range. Accordingly, NPL will have to incur additional expenditure towards the installation of the SNCR technology in order to comply with the emission limits of NO_x, in terms with the Notification.

12. The Commission vide its Order dated 18.05.2018 directed NPL to-

- a) Resubmit the data to the Central Electricity Authority (CEA) and Punjab State Power Corporation Limited (PSPCL/Respondent) after making necessary corrections and inform the Commission of the same;
- b) Submit a comparative statement / report of data submitted earlier and revised data to be submitted to CEA; and
- c) File the recommendations of CEA regarding installation of Flue Gas Desulphurization system (FGD)/ compliance of environmental norms immediately after issuance of the same by CEA.

Referring to the observation by the Commission in the aforesaid Order that NPL had quoted a higher figure of emission level of Sulphur Dioxide (SO₂) to the CEA while seeking its recommendation on the technological aspects of FGD in contrast

to the emission levels stipulated in the data submitted to PSPCL, it was submitted that in the absence of any specific instruction/direction from the CEA qua the submissions of average values of flue gases such as SO₂ and Oxides of Nitrogen (NO_x), NPL submitted the peak values of the said flue gases while submitting the required data to the CEA. This was also primarily on account of the fact that in the format provided by CEA, there was a limitation of providing only one value against a particular year. The value of 1800 mg/Nm³ or 2000 mg/Nm³ can be viewed on the Distributed Control System (DCS) which captures the real time surge in emission values of flue gases. In contrast to this, the Continuous Emission Monitoring System (CEMS) records the hourly average data and therefore, does not reflect the sporadic surge in emission value. Such sudden surge in emission values can occur on account of sudden change in the operating conditions such as load fluctuation, change in blend of coal which is not homogenous mixture i.e., blend of imported coal and domestic coal being fired contains higher percentage of imported coal which has higher sulphur content. Therefore, NPL by way of abundant caution had highlighted the peak values captured in the DCS so that the systems of FGD and SNCR are always capable of complying with the stricter norms stipulated by the Ministry of Environment, Forest and Climate Change (MoEF & CC) in the notification dated 07.12.2015 (Notification). The intent and objective of NPL was to be compliant in all scenarios even in the instances involving sporadic higher emissions. Having stated that, NPL pursuant to the hearing on 16.05.2018 undertook various meetings with CEA's officials and submitted the revised data in terms of their requisition keeping specifically in view the concerns

highlighted by the Commission and PSPCL during the hearing on 16.05.2018. A meeting was held at the CEA office on 21.05.2018 qua the requirement of the details/data for the recommendation of a suitable technology for the 2x700 MW Rajpura Thermal Power Project (Project/Plant). The CEA on 23.05.2018, *inter alia* requested NPL for the submission of a write up on source wise details of ammonia/disposal plan for ammonia sulphate, source wise details of limestone/disposal plan for gypsum, analysis of flue gas/coal/ash, the details of the existing ID Fan, existing mechanism of PPA with PSPCL, the PLF and Availability of the Plant during the past four years and the updated Format#3 of CEA. Another meeting was held between NPL and the officials of CEA on 28.05.2018 and subsequently, NPL submitted the aforesaid documents requisitioned by the CEA on 01.06.2018. Thereafter, NPL on 04.06.2018, submitted the ultimate analysis report of coal and the corresponding SO₂ values recorded on 12.04.2018 on the Continuous Emission Monitoring System (CEMS). NPL then submitted the ultimate analysis report of the flue gas on 07.06.2018. Another follow up meeting was held between NPL and the officials of the CEA on 12.06.2018 qua the data/details for the recommendation of a suitable technology to comply with the emission limits prescribed by the Notification. Thereafter, the CEA team visited NPL's Project site on 22.06.2018. NPL then on 23.06.2018 submitted a brief note on cost estimation, plot plan marked with FGD area and the Plant photographs. In the meanwhile, the CEA on 25.06.2018, requested NPL to submit the technical annexure and the same along with the updated Format#3 with emission values. The aforesaid details were submitted by NPL on 27.06.2018. Thereafter, multiple telephonic communications

dated 03.07.2018, 06.07.2018, 09.07.2018 and 11.07.2018 took place between NPL's representatives and the officials of the CEA qua the cost estimates, technical queries, chimney height and the tentative date for visit. During such calls, various clarifications were provided by petitioner's representatives based on comments/inputs from CEA's officials. Subsequently, a follow-up meeting was once again held between NPL and the officials of the CEA on 16.07.2018 and thereafter, NPL submitted the indicative auxiliary consumption wet limestone based FGD (per unit) as required by the CEA on 18.07.2018. Eventually, the final recommendation qua the installation of FGD was issued by the CEA on 20.07.2018.

In context of the first direction of the Commission to NPL regarding the sharing of the documents being sent by it to the CEA with PSPCL and the Commission, NPL submitted that considering the details and submissions were being exchanged and clarified on a regular basis between NPL and CEA and the tight timeline for complying with the MoEF &CC's Notification, it was deemed appropriate by NPL to bring all such documents and details on record at one go after culmination of the process.

In addition to the above, NPL in compliance with the direction of the Commission at sr. no . (iii) of the said Order submitted the copy of the recommendations of the CEA dated 20.07.2018 wherein a wet FGD with either lime stone or ammonia based has been recommended for the Project.

13. The final submissions made by NPL vide letter dated 24.09.2018 in their consolidated written submissions filed in compliance of Order dated 17.09.2018 are summarized as under:

i. The Commission vide its order dated 17.09.2018 had directed NPL to furnish an affidavit providing a certificate from the Chartered Accountants on the basis of audited accounts that no provisioning of funds was made for Flue Gas Desulphurization system (**FGD**) and/or Nitrogen Oxide (**NO_x**) limiting system in the completed capital cost of the 2x700 MW Rajpura Thermal Power Project (**Project**) as on the date of commercial operation of the Project. In compliance with the aforesaid direction of the Commission, the Chartered Accountants of NPL have issued the certificate dated 21.09.2018 (**CA Certificate**) based on the audited financial accounts of NPL between FY 2010-11 to FY 2017-18 wherein it has been certified that no provision was made, nor any amount was kept aside by NPL for the purpose of installation of FGD system and/or NO_x limiting system as the same were not a constituent /part of the Environmental Protection Measures.

ii. NPL further submitted the head/item-wise breakup/detail of expenditure for each year for implementation of the Environmental Protection Measures as submitted to the Ministry of Environment, Forest and Climate Change (**MoEF & CC**)/ Central Pollution Control Board (**CPCB**)/ Punjab Pollution Control Board (**PPCB**) etc.

iii. NPL reiterated its reason for filing the present petition , pleading that the notification dated 07.12.2015 was a change in law and therefore it was seeking an in-principle approval to prudently incur the consequent project cost i.e., capital expenditure and operation and maintenance expenditure to comply with the same.

iv. NPL clarified that it is not seeking the disbursement of the amount prior to incurring the expenditure but sought only a pass through of the actual costs incurred on installation of the FGD and SNCR/alternate technology pursuant to discovery of such costs through a transparent bidding process. The additional impact suffered by it on account of installation of FGD and SNCR/alternate technology such as increase of the auxiliary consumption impacting the Contracted Capacity under the PPA, increase of the Station Heat Rate, operation and maintenance costs in relation thereto, cost of limestone would be recovered as part of energy charges etc. NPL stated it would require grant of advance regulatory approval by the Commission to ensure that the cost of installation will be recovered by way of an increase in the tariff in terms of the Change in Law provision under the PPA which eventually will make the project bankable. The stringent deadlines for the implementation of the said Notification and the fact that the installation of FGD and SNCR would consume significant amount of time and expenditure.

v. NPL referred to the Order dated 20.07.2018 issued by the CERC in Petition No. 98/MP/2017 recognizing the Notification as a Change in Law event. In this case, NPTC *inter alia* sought approval of various expenditure on account of installation of Emission Control Systems (ECS) in compliance of the MoEF&CC's Notification, from the Hon'ble CERC under the 'Change in Law' related provision in terms of Regulation 3(9)(a)&(b) read with Regulation 14(1)(v), 14(3)(ii) and 8(3)(ii) of the CERC (Terms & Conditions of Tariff) Regulations, 2014 (CERC Tariff Regulations 2014). The Hon'ble CERC, by way of its order dated 20.07.2018 disposed of the NTPC Case *inter alia* laying down that the

Notification issued by the MoEF&CC amounts to a 'Change in Law' event in terms of the Tariff Regulations 2014. The Hon'ble CERC formulated the following issue in this regard:

"Issue No. 2 Whether the MoEFCC Notification dated 7.12.2015 requiring the thermal generating stations to implement the revised environmental norms amounts to Change in Law in terms of the provisions of the 2014 Tariff Regulations?"

In response to the aforesaid issue, the Hon'ble CERC concluded in affirmative, as below:

"44. In our view, the MOEFCC Notification dated 7.12.2015 requiring the thermal generating stations to implement the revised environmental norms amounts to 'Change in Law' in accordance with the 2014 Tariff Regulations as well as the Policy directions issued by the MoP under section 107 of the Act."

vi. NPL mentioned that Hon'ble CERC while giving the aforesaid finding had placed reliance on the directions dated 30.05.2018, issued by the Ministry of Power in exercise of its powers conferred under Section 107 of the Electricity Act. The definition of 'Change in Law' under NPL's PPA is *pari materia* to the definition of 'Change in Law' under the CERC Tariff Regulations, 2014 as highlighted to this Hon'ble Commission during the course of hearing in the present matter on 12.09.2018.

vii. NPL also mentioned the CERC Order of 17.09.2018 in Petition No. 77/MP/2016, a Case two power project like NPL (having similar Change in Law provision in the PPA as in the present case of NPL) wherein the Notification dated 07.12.2015 has clearly held that the same amounts to 'Change in Law' event.

viii. Contesting PSPCL's assertion that the NTPC judgment being a cost plus project was not germane to the issue, NPL mentioned CERC's Order dated 17.09.2018 in the case of CGPL vs. GUVNL in which the CERC had concluded:

“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.

....
49. (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.”*

ix. In so far as in principle approval is concerned, NPL again referred to the APTEL judgment of 23.04.2014 in appeal No. 207 of 2012 in its own case of the railway siding wherein APTEL had accorded in principle approval. NPL maintained that PSPCL contention that the APTEL Order did not give in principle approval was incorrect and that NPL had not incurred the complete expenditure in setting up the railway siding at the time when it had approached the Hon'ble Tribunal in appeal. It was in the process of executing the railway siding. Furthermore, even on the date when the Hon'ble Tribunal had decided in favour of NPL on the issue of Change in Law, the railway siding was incomplete and got completed much later, around February of 2016. This in itself shows that these two steps – (i) determination and declaration of a particular event as a Change in Law event; and (ii) computation of cost incurred on account of such Change in Law event are two

delinked activities and can be carried out separately.

x. NPL also referred to CERC Order dated 19.12.2017 in the case of DB Power Ltd. vs. PTC India Ltd. & Ors.; order dated 19.12.2017 in the case of DB Power Ltd. vs. TANGEDCO & Ors; and its order dated 21.02.2018 in the case of GMR Kamalanga Energy Ltd. & Anr. vs. Dakshin Haryana Bijli Vitran Nigam Limited & Ors., wherein CERC had granted an in-principle approval by way of recognising a similar notification issued by the MoEF&CC dated 25.01.2016 resulting in the additional cost towards fly ash transportation, as a Change in Law event.

In the light of these orders of the Hon'ble Tribunal and Hon'ble CERC, NPL submitted that the Commission was well within its powers to declare that the said Notification amounts to a Change in Law event and therefore grant an in-principle approval of the project cost. Referring to PSPCL's contention that CERC judgments are not binding on the Commission, NPL stated that while agreeing that CERC being a similarly placed regulator its judgment are not a binding precedent over the Commission. However, the sanctity of the legal issue (i.e., grant of in-principle approval of the expenditure under the Change in Law provision) decided by the Hon'ble CERC as the central regulator cannot be devaluated and the Commission could refer and rely on CERC's judgments.

xi. NPL also continued to maintain that despite there not being any provision for the grant of an in-principle approval under the PPA, APTEL had allowed the same and that this Commission too could by way of exercising its regulatory powers allows in principle approval of the project cost.

xii. NPL contradicted PSPCL's view that the JSW case was similar to the instant case and therefore merited the same and in its argument relied on the legal principle, "a little difference in facts or additional facts may make a lot of difference in the precedential value of a decision" (refer Bhavnagar University v. Palitana Sugar Mills Pvt. Ltd. (2003) 2 SCC 111. NPL also referred to the case of KTMTM Abdul Kayoom & Anr. v. Commissioner of Income Tax, Madras, AIR 1962 SC 680, the relevant extract of which is set out below:

"19. Each case depends on its own facts and a close similarity between one case and another is not enough because even a single significant detail may alter the entire aspect, in deciding such cases. One should avoid the temptation to decide cases (as said by Cardozo) by matching the colour of one case against the colour of another. To decide therefore, on which side of the line a case falls, the broad resemblance to another case is not at all decisive."

The key differences between the two cases were again recounted.

xiii. NPL referred to the CERc's Order distinguishing between JSW and Adani cases, Petition No. 104/MP/2017 and the JSW and CGPL cases. The relevant excerpts from the Adani Case are as under:-

"36 The findings of the Tribunal in the case of JSW is that the EC dated 16.4.2010 is a mere confirmation of the earlier EC dated 17.5.2007 which is apparently based on the fact that the EC granted by MOE&F to JSW on 16.4.2010 makes reference of the EC granted by letter dated 17.5.2007 where there was a direction to make provisions for space for FGD. In the present case of the Petitioner, the EC granted by MOE&F on 20.5.2010 for Phase III was independent of the ECs granted by MOE&F on 13.8.2007 and 21.10.2008 respectively for Phases I and II of the project. However, in case of Phase III, there was no prior EC as in case of JSW and EC dated 20.5.2010 was granted by MOE&F at the first

instance mandating the installation of FGD. The case of JSW is therefore distinguishable from the present case of the Petitioner and hence the judgment of the Tribunal dated 21.1.2013 cannot be made applicable in case of the Petitioner as contended by the Respondents/M/s Prayas.”

“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. 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...”

xiv. According to NPL the CERC has distinguished between the nature of the projects and therefore in the present case which is a Case 2 Scenario 4 project, PSPCL being the procurer was responsible for arranging all the consents and approvals.

xv. With respect to space provision for the installation of FGD , NPL maintained that this is a standard clause in the environmental clearances for majority of the power projects in contrast to the aforesaid clause in the first category of the environmental clearances, in the second category of the environmental clearances, the MoEF&CC had specifically mandated the installation of the FGD equipment as a statutory condition as in the case of Bongaigaon Thermal Power Plant in Assam. NPL also submitted a demonstrative list of such power projects including the copy of their environmental clearances, for which the FGD installation was required as a statutory mandate in their environmental clearances. Thus, wherever the MoEF&CC

intended that there should be a statutory mandate on the project developer to install the FGD equipment, the same was clearly and specifically stated and provided for in the environmental clearances granted to such projects.

xvi. NPL reiterated that its own environmental clearance stipulated provisions of space which was done. NPL again denied that this stipulation required provision of funds for installation and maintenance in the future as that would have been a huge cost to have built into the project cost and would have resulted in a higher tariff without actual installation.

xvii. NPL repeated that it had complied with the MoEF & CC directive of providing funds for the FGD as it was not required. It had also submitted its compliance reports in respect to the expenditure & MoEF had accepted the same. NPL quoted CERC's Order in Adani Case.

“... ”

32. It is evident from the above that the Petitioner had not earmarked funds for installation of FGD in the year-wise expenditure submitted to MOE&F on environmental protection measures in compliance with the ECs dated 13.8.2007 and 21.10.2008. It is pertinent to mention that MOE&F had also not raised any objections for not earmarking funds towards installation of FGD in terms of the ECs dated 13.8.2007 and 21.10.2008 respectively. In this background, we are of the view that the installation of FGD in Phases I & II of the project was not mandatory, except for space provisions for FGD and the Petitioner could have reasonably assumed that similar condition would only be imposed for Phase III of the project. Accordingly, the Petitioner could not have been expected to factor the cost of installation of FGD in the bid for Phase III. We therefore conclude that the installation of FGD was not a mandatory requirement as on the cut-off date (19.11.2007) and was made mandatory post the cut-off date vide the EC dated

20.5.2010 granted to the Petitioner for Phase III (units 7 to 9) of Mundra UMPP ..."

xviii. In addition, it was also highlighted that the Hon'ble CERC in the CGPL Case has also taken a similar view. Here too, the environmental clearance granted to CGPL also consisted of the two conditions i.e., keeping a space provision and earmarking a fund towards environmental protection measures as stipulated in the Environmental Clearance granted to NPL:

"32.. 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. ..."

Since the two conditions of keeping space and earmarking funds for the environmental protection measures which were stipulated in the environmental clearance for Adani's Phase I and Phase II respectively and CGPL Case are *pari materia* to the conditions stipulated in case of NPL's Environmental Clearance, NPL

maintained that even in its own case installation of FGD cannot be said to be a mandatory stipulation.

xix. It was also pointed out by NPL that the Environmental Clearance granted to NPL was extended twice i.e. in the year 2010 and 2014 by way of which the MoEF&CC had inserted various new conditions to the Environmental Clearance granted to NPL in 2008. Further, the Consent to Operate was granted to NPL by the PPCB on 09.10.2013 and 17.04.2014 respectively and further extended in the year 2015. The fact that the MoEF&CC/PPCB did extend and/or renew the Environment Clearance and the Consent to Operate respectively without raising any objection on the issue of non-installation of FGD/ not earmarking funds for FGD by NPL reinforced NPL's contention that installation of FGD was not mandated in the Environmental Clearance. Referring to the Commission Order to check with the local MoEF & PPCB offices regarding the E Compliance Report, NPL contended that had it been mandatory, then in view of the higher emission of SO₂ MoEF& PPCB would have already directed NPL to install FGD.

xx. NPL also gave details of expenditure upto 2014-15 on the constituents of Environmental Protection Measures that have been submitted to MoEF & CC.

xxi. NPL repeated that in line with CEA Report it has floated tender for FGD based on both wet line and ammonia based technologies, however, in view of the prevalent norms based on practice, wet lime based technology appears to be preferable for NPL's Project considering the Unit size of 700 MW.

xxii. NPL reiterated its contention regarding the data it had submitted to CEA denying PSPCL's allegations that the same had deliberately been raised. It was contended that PSPCL was

reading the TCE report selectively. NPL referred to CERC's Order on CGPL :

"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 NOx burners, in order to reduce Nitrogen Oxide emissions. The Petitioner had installed the requisite low NOx 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 NOx 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 NOx 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. No emission norms were prescribed in the EC. The Petitioner has installed the low NOx burner and the current emission level of NOx 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 NOx 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.”

xxiii. NPL was of the view, that from the Hon'ble CERC's order in the CGPL Case it becomes apparent is that certain additional hardware/system will be required to be installed in addition and apart from the presently installed systems to comply with the MoEF&CC's Notification with respect to the stringent NO_x emission levels. SNCR with reduction efficiency of 35% appears to be the most feasible retrofitted technology as is recommended by TCE for NPL to reduce the NO_x level for all the operating range. Accordingly, NPL will have to incur additional expenditure towards the installation of the SNCR technology / alternate technology as may be recommended by CEA in order to comply with the emission limits of NO_x, in terms with the directions of the CPCB and the Notification issued by the MoEF&CC.

xxiv. Denying PSPCL's contention on the subject NPL reiterated that they are entitled to compensation in the form of an upward tariff adjustment for 'Change in Law' in accordance with Article 13 of the PPA. NPL stated that the principle of complete restitution under the 'Change in Law' provision has been clearly recognized and settled by the Hon'ble Supreme Court in the case of Energy Watchdog & Ors. vs. CERC & Ors. (Energy Watchdog)

(2017)14SCC80. The relevant excerpts of the case, in this context, are set out below:

“55. However, in so far as the applicability of clause 13 to a change in Indian law is concerned, the respondents are on firm ground. It will be seen that under clause 13.1.1 if there is a change in any consent, approval or license available or obtained for the project, otherwise than for the default of the seller, which results in any change in any cost of the business of selling electricity, then the said seller will be governed under clause 13.1.1. ...”

....
57. Both the letter dated 31st July, 2013 and the revised tariff policy are statutory documents being issued under Section 3 of the Act and have the force of law. This being so, it is clear that so far as the procurement of Indian coal is concerned, to the extent that the supply from Coal India and other Indian sources is cut down, the PPA read with these documents provides in clause 13.2 that while determining the consequences of change in law, 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, the affected party to the economic position as if such change in law has not occurred. ...

xxv. NPL also highlighted the Hon'ble CERC in the Adani Case had already allowed the compensation under the 'Change in Law' provision towards the impact on account of increase in auxiliary power consumption on account of installation of FGD as well operation & maintenance cost towards operation of FGD. NPL therefore prayed for a declaration that the said Notification introducing the new emission standards for SO₂ and NO_x gases amounts to a Change in Law event in terms of the PPA and further, grant of in-principle approval of the consequent project cost based on the CEA Recommendation Report with respect to the installation of FGD for complying with SO₂ emission level and in terms of the TCE Report/Feasibility Report with respect to

installation of SNCR for complying with NO_x emission level respectively or any alternate technology as may be recommended, so that NPL can tie up the adequate financing arrangements to ensure the timely availability of funds to implement the technology necessitated by the Notification.

14. The submissions made by PSPCL vide Memo No 5695 dated 28.09.2018 in their consolidated written submissions filed in compliance of Order dated 17.09.2018 are summarized below:

PSPCL stated that during the hearing on 16.05.2018 as well as hearing on 12.09.2018, NPL has restricted its case for the present only for in principle approval of the change in law and did not press for any in-principle approval of project costs. This is particularly since the costs envisaged in the Report of the Central Electricity Authority are much less as compared to the costs claimed by NPL. Further it was also noted by the Hon'ble Commission in the hearing on 16.05.2018 that the costs now projected, including by NPL's parent company, are much lower than the projected costs in the Feasibility Report submitted by NPL in its Petition.

NPL has claimed the changes only in terms of the following:

- a) The Emission Norms related to Sulphur Dioxide (SO₂) and the installation of FGD; and
- b) The Emission Norms related to Nitrogen Oxide (NO_x) and the installation of SNCR.

However, in relation to the other emission norms and water norms, there has been no claim by NPL and the same therefore, is not required to be considered. NPL is already meeting the emission

limits for Suspended Particulate, Mercury as well as for water consumption. Therefore, there is no change in law in regard to the above.

i. The issues raised by NPL in the Petition have to be considered with reference to the specific provisions of Article 13 in the PPA. Further, the relief, if any, is to the extent contemplated in the said Article 13. The principle of restoration to the same economic position, as claimed by NPL is subject to the above qualification. Further, NPL cannot claim relief on any general law of contract or prevalent industry practice.

ii. It was further submitted that the obligation to comply with the Environment norms is the responsibility of NPL and the same is not dependent on any approval of the Hon'ble Commission or concurrence of PSPCL. NPL cannot seek to delay or avoid any of its obligation on the basis of the pendency of the present Petition with regard to the PPA.

iii. There is no provision in the PPA for grant of an in-principle approval before the expenditure has been incurred. There cannot be any upward revision in tariff at this stage. The compensation, if any, is also payable under Article 13 only after the expenditure has incurred. NPL cannot seek in-principle approval of an estimated project cost. Therefore, the Petition is premature at this stage. It is submitted that the relief is admissible only after the actual expenditure; the very recognition of change in law requires the expenditure to have been incurred. Article 13.1.1 recognizes as change in law only those events, which affect the cost and revenue from business of selling electricity. Therefore, unless there is an impact on cost or revenue, there can be no change in law.

iv. PSPCL referred to its earlier in Written Submissions dated 19.04.2018 and stated that Further PSPCL has distinguished the cases relied on by NPL. NPL has further relied on the decision of the Central Commission in NTPC Case for the environmental norms. It was submitted that the issue of change in law in the case of NTPC is different from the PPAs between NPL and PSPCL. The change in law is under Regulations and does not have any requirement of impact on costs or revenues. Therefore, the said decision is not comparable.

v. PSPCL also submitted that NPL has claimed the amendment in Environment (Protection) Rules as the Change in Law. However, for the change in law provision, the law as prevailing on the cut-off date for NPL is to be considered, including the requirement for various consents and clearances to be obtained and the conditions imposed therein. NPL was aware, as on the cutoff date that the project required to obtain various consents and clearances and the Environment Authorities were entitled to impose conditions for such clearances and conditions. Therefore, to the extent that the Environment Clearance or Consents provide for a condition on the operations of the NPL's power project prior to the Amendment to the Rules, then to that extent, the Amendment is not a change in law since NPL was already subject to the said conditions. This has also been recognized in the Ministry of Power letter dated 30.05.2018 to the Central Electricity Regulatory Commission, wherein it has been stated as under:

“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:

....

(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”

vi. The Amendment can be considered a Change in Law only to the extent that it imposes new conditions or makes the existing conditions more stringent. For example, the Environment Clearance required the installation of ESP to ensure Particular Matter emission does not exceed 50 mg/N₃, which conforms with the norms set in the Amendment to the Environment (Protection) Rules. Further, the Environment Clearance required NPL to monitor the emission standards, inter alia, of SO₂ and NO_x and ensure that the same are within prescribed limits. NPL was also not permitted to use coal with greater than 0.5% sulphur content. The National Ambient Air Quality Standards had also prescribed emission norms for the area. Therefore, it was quite possible that NPL was already subject to the said conditions by way of other clearances, consents or standards to meet the same standards as is required to be met now under the amended Rules.

vii. Further, the effect of any change in law subsequent to the cut-off date is restricted to the incremental cost or additional expenditure on installation or upgradation of the plant and equipment to be installed by reason of change in law over and above the expenditure which was in any event required to be incurred even in the absence of such change in law and not for the entire capital expenditure. NPL has claimed the expenditure on installation of FGD as change in law. This is based on the premise that there was no stipulation or condition for installation of FGD on the cut-off date. NPL has relied on the Letter dated 30.05.2018 by Ministry of Power, Government of India being policy direction

under Section 107 of the Electricity Act, 2003. Though the said policy directions are to Central Commission and not to State Commission and even otherwise not binding on the Commissions, it is submitted that the said Policy direction clearly provide that in case the pollution control system was either mandated or otherwise envisaged before the notification of the amendment rules, there is no change in law for such cases. It is the specific case of PSPCL that the installation of FGD was already envisaged before the notification of the amendment rules as also been held by the Hon'ble Tribunal.

viii. Therefore, what has to be considered is whether the requirement of installation of FGD was envisaged prior to amendment. It was submitted that the Environment Clearance dated 03.10.2008 (prior to cut off date) provided as under:

“(vi) Space provision shall be kept for retrofitting of FGD, if required at a later date.

(xxv) Separate funds should be allocated for implementation of environmental protection measures along with item-wise break-up. These costs should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.”

ix. PSPCL maintained that NPL's contention with regard to the obligations of PSPCL under the RFP or Guidelines to acquire Environment Clearance is not relevant in the present case. The issue in the present case is not whose obligation it was to obtain the environment clearance but rather what were the implications of the conditions of such environment clearance. The Environment Clearance was related to the power project of NPL and NPL was the entity required to comply with the conditions of the

Environment Clearance. It is not NPL's case that it is not subject to the conditions of the Environment Clearance nor that it was PSPCL who was required to comply with the conditions in the Environment Clearance.

x. Whether NPL was an Independent Power Producer obtaining Environment Clearance on its own or whether NPL through PSPCL obtained the Environment Clearance is irrelevant. What is relevant is only if the Environment Clearance (which in this case was admittedly prior to cut off date), envisaged certain obligations on part of NPL. The contention of the NPL that the Environment Clearance only provided for space for retrofitting of FGD and did not require the actual installation of FGD is contrary to letter of Ministry of Power dated 30.05.2018 which recognizes that there is no change in law in respect of "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". The Letter thus recognizes two situations – where the pollution control system is mandated and where it is envisaged. The mandate and envisaging of measures are two different considerations and even if there is no specific mandate, the measures can still be envisaged. Therefore, even if the Environment Clearance does not mandate installation of FGD, it may still envisage the installation/retrofitting of FGD and in such cases also, there is no change in law with regard to FGD.

xi. PSPCL again referred to the Order of Hon'ble Appellate Tribunal in M/s JSW Energy Limited v. Maharashtra State Electricity Distribution Co. Ltd and Another dated 21.01.2013 in Appeal No. 105 of 2011 which have been challenged by JSW. The Environment Clearance granted to JSW had the similar conditions

as those in NPL's Clearance. The relevant extracts of the decision of the Hon'ble Tribunal are as under:

"9. Before dealing with these questions, it would be better to refer to the relevant chronological events which would disclose the actual background of the case, which are given below:

.....

iv) There were several conditions provided in the Environmental Clearance dated 17.5.2007. We shall quote the relevant conditions contained in the Environmental clearance which are given below:-

(iii) Space provision shall be made for installation of FGD of requisite efficiency of removal of SO₂, if required at later stage.

(xx) Separate funds should be allocated for implementation of Environmental protection measures along with item wise break up. These cost should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year wise expenditure should be reported to the Ministry.

v) Through these conditions, the Appellant had been communicated that the Appellant may be required to install FGD of required capacity at a later stage and called upon the Appellant to provide the space for installation of FGD of requisite efficiency as well as to allocate funds for implementation of those Environmental protection measures and the cost should be included as part of the Project cost. It also provided that the Appellant should not divert the said funds for any other purpose.

.....

18. It is true that in the Environmental clearance dated 17.5.2007 in Para-(iii), the Appellant was directed to install the FGD at a later stage if required. However, it was to be noted that there is not only reference relating to identification of the space in the Environmental Clearance but it specifically mandated under Para (xx) that the Appellant should allocate separate funds for implementation of the Environmental protection measures and cost of the same should be included as part of the project cost. It further provided the funds earmarked for the same should not be diverted for any other purpose.

19. According to the Appellant, when the Environmental clearance was issued in favour of the Appellant, the FGD was not foreseen at that stage. As indicated above, the Environmental clearance dated 17.5.2007 of course, provided for installation of FGD at a later stage but it clearly mandated that the cost of the Environmental protection measures must be allocated and the said funds allocated, have to be included in the project cost and the same should not be diverted for any other purpose.

.....

29. On a careful perusal and on a combined reading of relevant clauses of the PPA, the Environmental Clearance dated 17.5.2007 and the letter issued by the Central Government on 16.4.2010, it is clear that there is no change in law as contemplated by the PPA.

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.

.....

35. As mentioned above, the condition No (iii) would mandate that the space provision shall be made for installation of FGD at a later stage. The Para (xx) would also provide that separate funds would be allocated for implementation of these conditions and the said funds should be included as a part of the project cost. Therefore, the specific direction given to the Appellant even in the Environmental clearance would reveal that the Appellant was duty bound to include the fund allocation in the project cost. Admittedly, this was not done.

36. The Appellant now seeks to rely only upon the condition that the space provision for FGD is made if required in future. But the Appellant, in fact has not taken note of the remaining

conditions as to the fund allocation and inclusion of the same in the project cost.

.....

50. Summary of our Findings

(i) The Environmental Clearance dated 17.5.2007 provided for installation of the FGD at a later stage. It further mandated that separate funds must be allotted for installation of the said FGD, which are to be included in the project cost. Admittedly, these conditions have not been complied with by the Appellant after getting the Environmental Clearance.

(ii) On a careful perusal of the relevant clause of the PPA, the Environmental Clearance dated 17.5.2007 and the letter issued by the Central Government on 16.4.2010, it is clear that there is no "change in law" as contemplated by the PPA. In fact, the letter dated 16.4.2010 issued by the Central Government merely confirms the requirement of installation of the FGD intimated through the letter dated 17.5.2007. It merely informs the Appellant the state of the installation of the FGD. Therefore, there is no "Change in law" as claimed by the Appellant. The reasonings given in the impugned order for rejecting the claim of the Appellant are perfectly valid in law."

xii. NPL has sought to distinguish the above judgment of the Hon'ble Tribunal on various grounds. However, it has been submitted that the ratio of the judgment is that when the Environment 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 the subsequent communication is merely a confirmation of the requirement. The various distinguishing features sought to be raised by NPL do not impact the above basic finding of the Hon'ble Tribunal:

i. The award of project being under Case 1 or Case 2 of Competitive bidding guidelines have no relevance. As already submitted herein, what is relevant is the conditions envisaged in

the Environment Clearance. The Hon'ble Tribunal has specifically held that the requirement of FGD was already envisaged in the Environment Clearance which provided for space for such FGD and funds to be allocated – similar to the case of NPL.

- ii. The issue of Modification of Environment rules being the reason for requirement of FGD does not take away the basic principle of the decision of the Hon'ble Tribunal that the FGD was already envisaged at the time of Environmental Clearance. Once the FGD was already envisaged, the subsequent confirmation of the requirement of FGD cannot be considered as change in law. This contention of NPL is also negated specifically by the Ministry of Power in its Letter dated 30.05.2018 which provided that if FGD was already envisaged, there is no change in law.
- iii. The requirement of space provision for installation of FGD was not necessarily linked to the additional study to be carried out. If the above contention of NPL is accepted, then there should have been no such requirement in the NPL's Environment Clearance as there was no issue of plantation or marine fisheries.
- iv. The proceedings against the Environment Clearance or the additional study being carried out in the case of JSW, does not change the premise of the Hon'ble Tribunal's decision that the original Environment Clearance by requiring the space for installation of FGD and earmarking of funds, had already envisaged the requirement of FGD and the installation of FGD subsequently is not a change in law. The relevant extract of the Judgment quoted above clearly deal with the two specific provisions of the Environment Clearance. PSPCL contended that it is not open for NPL to argue that there was no requirement of installation of FGD when the Environment Clearance specifically

required that the space for FGD be provided. There would have been no need for provision of space for installation of FGD if the requirement had not been envisaged.

- v. Further even in case of JSW where Additional Study was to be conducted, the issue is whether the FGD was contemplated prior to the cut-off date. The same contention as NPL was raised by JSW that JSW could not have contemplated the requirement to install the FGD. The Hon'ble Tribunal rejected the said contention, not on the basis of pendency of any additional study but on the basis of two conditions in the Environment Clearance which are also present in the NPL Case.
- vi. The requirement of FGD prior to or after commissioning of the Power project has no relevance to whether such requirement is a change in law as per the PPA or not.
- vii. The alleged difference in the Change in Law clauses of PPA between JSW and MSEDCL and the PPA between NPL and PSPCL is not relevant. The Hon'ble Tribunal in JSW Case had not rejected the claim of change in law on the basis that the change in consents were not recognized under Change in Law. In fact the Hon'ble Tribunal has compared the two Environment Clearances of JSW and held that there is no change.
- xiii. PSPCL reiterated that by pointing out differences between the JSW case and its own NPL cannot ignore the APTEL's recognition of the EC stipulation of space and funds for FGD and its conclusion that there is no change of law. FGD was envisaged in the EC and funds had to be allocated by JSW & NPL. PSPCL maintained that the CERC judgment in Adani did distinguish on certain issues:

“36. In the case of JSW, the MOE&F granted EC to JSW on 17.5.2007, subject to various conditions and one of the conditions was provision of space for installation of FGD system for removal of SO₂, if required at a later stage and for allocation of separate funds for implementation of environmental protection measures. Thereafter, at the final stage of commissioning of the project of JSW, the MOE&F by letter dated 16.4.2010 imposed a condition that FGD system should be installed before the commissioning of the said project within a period of 23 months and conveyed its EC for the project, subject to compliance of safeguards and conditions mentioned in the said letter. MERC and Tribunal had rejected the claim of JSW on the ground that there was no change in law under Article 13 of the PPA, since the letter dated 16.4.2010 issued by MOE&F merely confirmed the requirement of installation of FGD intimated through letter dated 17.5.2007. The findings of the Tribunal in the case of JSW is that the EC dated 16.4.2010 is a mere confirmation of the earlier EC dated 17.5.2007 which is apparently based on the fact that the EC granted by MOE&F to JSW on 16.4.2010 makes reference of the EC granted by letter dated 17.5.2007 where there was a direction to make provisions for space for FGD. In the present case of the Petitioner, the EC granted by MOE&F on 20.5.2010 for Phase III was independent of the ECs granted by MOE&F on 13.8.2007 and 21.10.2008 respectively for Phases I and II of the project. However, in case of Phase III, there was no prior EC as in case of JSW and EC dated 20.5.2010 was granted by MOE&F at the first instance mandating the installation of FGD. The case of JSW is therefore distinguishable from the present case of the Petitioner and hence the judgment of the Tribunal dated 21.1.2013 cannot be made applicable in case of the Petitioner as contended by the Respondents/M/s Prayas.”

Thus, the JSW decision has been distinguished not on the basis of any additional study or otherwise, but on the basis that in case of Adani Power, there was no prior Environment Clearance which provided for space for installation of FGD. The facts of NPL Case are similar to JSW Case and not Adani Power Case. Therefore,

the reason for the Central Commission to distinguish the decision of the Hon'ble Tribunal in JSW Case is not applicable in the present case and the reliance on the said decision of Central Commission by NPL is misconceived.

xiv. In the matter of NTPC Limited, it being a generating company whose tariff is determined under Section 62 of the Electricity Act, 2003 as per the CERC Tariff Regulations and is not a competitive bid project governed by the PPA. Therefore the decision of the Central Commission in NTPC Case is not relevant for the present case. NPL has sought to contend that the change in law under CERC Tariff Regulations 2014 is the same as the PPA which is incorrect. There are crucial differences as there is no comparison of change in law vis-à-vis law/consents etc on bid deadline date and there is no requirement of impact on costs and revenues of business of selling electricity. Further in case of NTPC, even if costs were envisaged in the earlier Environment Clearance, the same would not be allowed as pass through in tariff until the costs are actually incurred. However in the present case, NPL was required to consider all costs envisaged to be incurred throughout the life of the project while determining its bid price. This would include certain costs which are not immediately incurred. NPL cannot then claim that it had quoted the price only on basis of certain costs and not others.

xv. It was submitted that in a competitive bid, the projects submit their bids and are required to account for costs to be incurred by them to construct and operate the power project for the life of the project. The change in law only provides for compensation for costs which were not envisaged. NPL by its bid has hedged out other bidders, who may have accounted for such capital costs and

therefore it is not open for NPL to succeed in the bid by quoting lower tariff and then seek increase in costs. It was submitted that the existing clearances require NPL to use coal with sulphur content of not more than 0.5% and 34% ash. The emission of SO₂ as existing should be considered based on the above. Therefore, the obligation under the Amendment, if at all to be considered, is to be considered as the measures which are required for reduction from the above emission standards to the new standard of 200 mg/NM³.

xvi. PSPCL again raised the issue of NPL having given inflated emission figures. It was submitted that CEA Report has not provided any specific assumption of the SO₂ for its recommendation. This is in contradiction to the CEA Report for TSPL wherein it had considered the data of 2012 mg/NM³ or 2336 mg/NM³. In the present case of NPL, however, CEA has stated that there is a requirement for efficiency of 91% for the FGD and has further recommended 95% for various reasons, including flexibility. Thus the difference between 91% to 95% is the margin provided to generating company for higher emissions and flexibility etc. Therefore the 91% efficiency is the actual requirement of FGD for actual emissions and not on the basis of margins.

xvii. The requirement of 91% efficiency to achieve 200 mg/NM³ means that the actual emissions considered is 2222 mg/NM³ or at least 2000 mg/NM³. This does not match the submissions of NPL wherein the actual emissions have not even reached 1800 mg/NM³. PSPCL stated that NPL had submitted 1800 and 2000 mg/NM³ to CEA for SO₂ emissions which is not reflected at all in any of the data. Even in the Graph submitted by NPL to the Hon'ble Commission, there is no reference to 1800 or 2000

mg/NM³. In fact as per the Boiler Stack Emissions and Test Reports from Eco Laboratories & Consultants Pvt. Ltd for Stack Emission, the emissions are much lower. In this regard, NPL had sought to contend that the said data related to partial load or when the boiler was shut. PSPCL termed that such contention is specious.

xviii. NPL has now sought to justify the higher emissions by claiming that there is a sporadic increase as measured in real time by Distributed Control System (**DCS**). This issue has been raised for the first time despite the specific issues already raised by PSPCL in earlier submissions. Even now, NPL has not filed the said data to demonstrate such higher data. NPL has admitted that the CEMS data records hourly average. If the CEMS data is the continuous emission monitoring data on the basis of which the authorities monitor the emissions, then the standards of emissions are applied to the data recorded by CEMS. Therefore, sporadic increase in emission as alleged by NPL would not be recorded and therefore there is no violation of any norms. A short spike in emissions cannot be the basis to determine the efficiency of the FGD installation. It was also submitted that even otherwise as per 0.5% sulphur content, the emissions cannot cross 2000 mg/NM³. Therefore since the requirement of NPL to use 0.5% sulphur content was pre-existing, the efficiency of FGD to reduce any emissions above such 0.5% sulphur content is to the account of NPL and cannot be passed on to PSPCL and the consumers at large. The obligation under the Amendment, if at all to be considered, is to be considered as the measures which are required for reduction from the above emission standards to the new standard of 200 mg/NM³. Therefore even as per the

recommendation of CEA Report considering the emissions of 2000 mg/NM³ or higher, the additional obligation to be considered for passing on to PSPCL is from 0.5% sulphur content.

xix. The CEA Report does not deal with the abatement of NO_x emission and does not recommend any technology for the same. It was submitted that NPL had stated the yearly Nox emissions as 450 mg/NM³ to CEA and to PSERC. In one of the test reports, the NO_x is actually only 184 and 191 mg/NM³. In another data varies from 376 to 464 mg/NM³ (Revised Data). Significantly, the Feasibility Report submitted by NPL itself notes that as per the input of NPL, the actual emissions are 205 to 430 mg/NM³. However the Feasibility Report then considered the tentative NO_x emissions as 515 and 560 mg/NM³ which is not linked to the reality.

xx. Though PSPCL submitted that it did not want to go into the costs at this stage .It was brought out that CEA vide it's letter reference no.44/FGD/UMPP/CEA/2018/735 dated 25.09.2018 has reduced the maximum indicative cost i.e. CAPEX of FGD system from Rs. 0.5 Crore per MW to Rs. 0.4 Crore per MW for NPL stating that the prices has further come down. In relation to NO_x, PSPCL did not admit to the need for SNCR itself and particularly in the absence of any CEA analysis or recommendation in this regard.

Commission's Observations, Findings and Decision

15. After examining and considering the pleadings, documents filed and submissions made by both the parties, the Commission notes that pursuant to competitive bidding, a Power Purchase Agreement (PPA) was signed between NPL and Erstwhile PSEB

(now PSPCL) on 18.01.2010. NPL commenced supply of power to PSPCL from the first Unit on 01.02.2014. The Ministry of Environment and Forests accorded environmental clearance to M/s Nabha Power Limited vide letter dated 03.10.2008. The bid cut off date was 02.10.2009. MoEF&CC in exercise of its power under sections 6 and 25 of the Environment (Protection) Act, 1986 issued the Environment (Protection) Amendment Rules, 2015 on 07.12.2015 i.e. approximately 6 years after the bid cut off date, amending the levels of emission and the level of water consumption for all operational thermal power stations.

NPL submitted that it is required to now comply with the following norms for its 2x700 MW project by December, 2019:

Year of Commissioning	Particulate Matter	SO ₂	NO _x	Mercury	Water consumption
2016	50mg/Nm ³	200 mg/Nm ³ for > 500MW	300 mg/ Nm ³	0.03 mg/Nm ³	All existing CT-based plants reduce specific water consumption upto maximum of 3.5m ³ /mWh within a period of two years from the date of publication of this notification.

NPL submitted that Notification dated 07.12.2015 issued by MoEF&CC is a 'Change in Law' event in terms of Article 13.1.1(i) of the PPA as the said Notification is an amendment of the existing law i.e., the Environmental Protection Rules (EP Rules). In terms of the extant rules and regulations prevalent at the time of the bid submission i.e., the Environment Protection Act and the EP Rules, there were no norms for SO₂ and NO_x emissions and the same were introduced for the first time by way of the Notification issued by the MoEF&CC. Therefore as a result of the said Notification, it is compelled to incur additional expenditure towards the installation and operation and maintenance of FGD and SNCR. This would in turn have an impact on the operational parameters such as the

Station Heat Rate as well as the Auxiliary Power Consumption etc. It is therefore entitled to compensation in the form of tariff adjustment for Change in Law in accordance with Article 13 of the PPA.

NPL submitted that any further step can only be taken by it towards the compliance with the said Notification, pursuant to;

- a) the declaration by the Commission stating that the aforesaid event of change in the emission norms of SO₂ and NO_x respectively on account of the amendment in the EP Rules by the Notification dated 07.12.2015 is a 'Change in Law' event under the PPA; and
- b) allowing in-principle the expenditure to be incurred based on the Recommendation Report of CEA to meet new MoEF&CC Emission Norms.

NPL further submitted that installation of the FGD and/or the SNCR technology, were not included in the extant rules and regulations prevailing at the time of bid submission. Accordingly, the cost of such equipment was not required to be factored into the bid at the time of submission.

NPL also submitted that the lenders would require the comfort of a regulatory approval by the Commission to ensure that the cost of installation will be recovered by way of an increase in the tariff in terms of the Change in Law provision under the PPA which eventually will make the project bankable. NPL has requested to the Commission to grant in principle approval of the project cost so that it can tie up adequate financing arrangements to ensure the timely availability of funds to implement the technology necessitated by the Notification.

a. In support of its contentions NPL submitted that CERC in its order dated 20.07.2018 in petition 98/MP/2017 (NTPC Ltd Vs. Uttar Pradesh Power Corporation Ltd. and Others) held that the MoEF&CC Notification dated 07.12.2015 requiring the thermal generating stations to implement the revised environmental norms amounts to 'Change in Law' in accordance with the 2014 Tariff Regulations as well as the Policy directions issued by the MoP under section 107 of the Act. NPL submitted that CERC while giving the aforesaid finding had placed reliance on the directions issued by the Ministry of Power, by way of its letter dated 30.05.2018, in exercise of its powers conferred under Section 107 of the Electricity Act. NPL submitted that the definition of 'Change in Law' under NPL's PPA is pari materia to the definition of 'Change in Law' under the CERC Tariff Regulations, 2014. Therefore, the Commission may declare that the said Notification in the present matter qualifies as a 'Change in Law' event under the PPA.

PSPCL contended that the NTPC Case relied upon by NPL is a case related to a cost plus project and that the same cannot be relied upon in case of a competitively bid project like that of NPL as the issue of impact on the capital cost which is a relevant factor for ascertaining 'Change in Law' under a competitively bid project in terms of the PPA, is not required to be analyzed in case of a cost plus project like that of NTPC. PSPCL further contended that the issue of change-in-law in the case of NTPC is different from the PPA between NPL and PSPCL. The change in law is under Regulations and does not have any requirement of impact on costs or revenues. Therefore, the said decision is not comparable.

Considering the above and noting that there is a vast difference between a competitive bid project such as NPL and an NTPC cost plus project, the Commission is of the view that the facts and circumstances of the NTPC case are different from those of NPL case. Therefore, the decision of Central Commission in petition 98/MP/2017 is not relevant to the present case.

b. CERC in relation to a Case 2 power project like NPL (having similar Change in Law provision in the PPA as in the present case of NPL) in its order dated 17.09.2018 in Petition No. 77/MP/2016 in the case of Coastal Gujarat Power Limited vs. Gujarat Urja Vikas Nigam Limited & Ors. (CGPL Case) while dealing with the issue of compliance of the MoEF&CC's Notification dated 07.12.2015 has held that the same amounts to 'Change in Law' event.

The Commission notes that in the matter of M/s JSW Energy Ltd. Vs. Maharashtra State Electricity Distribution Co. Ltd., a similar Environmental Clearance dated 17.05.2007 was granted and thereafter vide letter dated 16.04.2010 of the Central Government, JSW was directed to install FGD prior to the commissioning of the plant. Hon'ble APTEL in its judgment dated 21.01.2013 in the said case held that the Central Government vide letter dated 16.04.2010 merely confirmed the requirement of installation of the FGD intimated through the letter dated 17.05.2007 and therefore, there is no change-in-law as claimed by JSW. Accordingly, the Commission is not inclined to rely upon the aforementioned Order of CERC dated 17.09.2018 in CGPL Case.

c. Hon'ble APTEL in its Order dated 23.04.2014 in Appeal No. 207 of 2012 in the case of Nabha Power Limited vs. Punjab State Power Corporation Limited had held that the change in the in-principle approval dated 05.11.2008, granted by the Northern Railways vis a vis the alignment of the railway siding for the Project, as a result of the revised approval by the competent authority in the Railway, leading to a change in the cost on account of change in the scope of work amounted a Change in Law event, in terms of Article 13.1.1 of the PPA.

PSPCL contended that the judgment of the Hon'ble Tribunal relied upon by NPL on the concept of in-principle approval does not specifically deal with the issue of whether such in-principle approval can be granted under the PPA. There is no discussion or consideration on the maintainability of such in-principle approval under the PPA provision dealing with the change in law. However, in the present case, it has been specifically disputed that such in-principle approvals for change in law are not envisaged in the PPA. It is well settled principle that a decision is an authority for what it actually decides and not what can be logically deduced therefrom. In this regard, PSPCL relied upon the decision of the Hon'ble Supreme Court in case of State of Haryana v. Ranbir Alias Rana (2006) 5 SCC 167.

Considering the above submissions and contentions of NPL and PSPCL, the Commission is of the view that in the case of Nabha Power Limited vs. Punjab State Power Corporation Limited in Appeal No. 207 of 2012, the in-principle approval already existed prior to the cut-off date which was revised by the Railway authorities after the cut-off date and the same was held as change in law by Hon'ble APTEL

whereas in the instant case, no such in-principle approval existed prior to the cut-off date. Accordingly, the said judgment is not applicable in the instant case.

d. CERC vide its order dated 19.12.2017 in the case of DB Power Ltd. vs. PTC India Ltd. & Ors.; order dated 19.12.2017 in the case of DB Power Ltd. vs. TANGEDCO & Ors and order dated 21.02.2018 in the case of GMR Kamalanga Energy Ltd. & Anr. vs. Dakshin Haryana Bijli Vitran Nigam Limited & Ors., had granted an in-principle approval by way of recognising a similar notification issued by the MoEF&CC dated 25.01.2016 resulting in the additional cost towards fly ash transportation, as a Change in Law event.

PSPCL contended that the judgments of the Central Commission do not consider the specific issue of whether the in-principle approval can be considered as per the change in law provisions of the PPA. PSPCL further contended that the decisions of the Central Commission are not binding on the Commission. PSPCL also submitted that the judgment passed by the Central Commission on 28.03.2018 in the case of Adani Power Limited, as relied upon by NPL, dealt with the change in law after the expenditure had already been incurred.

The Orders of CERC in the case of DB Power Ltd. vs. PTC India Ltd. & Ors. and DB Power Ltd. vs. TANGEDCO & Ors. both dated 19.12.2017 and Order dated 21.02.2018 in the case of GMR Kamalanga Energy Ltd. & Anr. vs. Dakshin Haryana Bijli Vitran Nigam Limited & Ors., are not intended to be relied upon by the Commission as Hon'ble APTEL in its judgment dated 21.01.2013 in JSW case, held that the

subsequent letter dated 16.04.2010 of the Central Government merely confirmed the requirement of installing FGD through the Environmental Clearance dated 17.05.2007 and therefore there was no change-in-law, as already brought out in sub-para (b) above.

NPL submitted that PSPCL had placed reliance on the Order of the Hon'ble APTEL in M/s JSW Energy Limited vs. Maharashtra State Electricity Distribution Company Ltd. & Anr. dated 21.01.2013 in Appeal No. 105 of 2011 (JSW Case). It is PSPCL's case that the distinguishing factors highlighted by NPL between the instant case and that of the JSW Case do not impact the basic finding of the Hon'ble APTEL in the JSW Case and that in effect, there are no material factual differences between these two cases. NPL however emphasized the legal principle that, "a little difference in facts or additional facts may make a lot of difference in the precedential value of a decision" (refer Bhavnagar University v. Palitana Sugar Mills Pvt. Ltd. (2003) 2 SCC 111. A reference was also made to the case of KTMTM Abdul Kayoom & Anr. v. Commissioner of Income Tax, Madras, AIR 1962 SC 680.

NPL further submitted that the specific facts and circumstances of the JSW Case are significantly different from the facts involved in the present case. CERC in the case of Adani Power Limited vs. Uttar Haryana Bijli Vitran Nigam Limited & Anr. (Petition No. 104/MP/2017) (Adani Case) has also distinguished the facts of JSW Case from that of Adani Case. The key differences between the two cases have been elucidated herein below:

i) In the JSW Case, owing to the plant's location on the ecological sensitive zone, the threshold level for ground level concentration of SO₂ was 30 µg/m³, however, in the instant case there was no such emission limit for SO₂ in the Environmental Clearance granted to NPL's Project on 03.10.2008 and the same was notified for the first time post the submission of the bid by way of the aforesaid Notification.

ii) In the JSW Case, the project was awarded under Case 1 of the Competitive Bidding Guidelines read with the model Request for Proposal (RfP) issued by the MoP as a part of the standard bidding documents. Therefore, the bidder i.e. JSW was responsible for the land acquisition and for obtaining the initial consents, including the environmental clearance. In the instant case, wherein the Project has been conceived and awarded under Case 2 Scenario 4, the responsibility of land acquisition and of obtaining the initial consents including the environmental clearance is on the procurer i.e. the Respondent/PSPCL.

iii) Further, in the JSW Case, the condition of keeping a space provision for the installation of the FGD equipment was based on the preliminary report of the Konkan Krishi Vidyapith, Dapoli (KKVD). In view of the sensitivity of the area around the project site, which included alphonso mango plantation and marine fisheries, the impact of sulphur dioxide emissions from the project on such plantation and fisheries were taken into consideration while granting the environmental clearance to JSW, dated 17.05.2007. The said environmental clearance was subject to the condition that a detailed study regarding the impact of the project on the alphonso mango and marine fisheries shall be carried out at the cost of the project proponent and based on the study, the

additional safeguards as may be required would be carried out by the project proponent. In stark contrast to the above, there was no such condition of carrying out a detailed study in the Environmental Clearance.

iv) That in the JSW Case, at the time of the submission of the bid, there was a pending litigation in relation to the environmental clearance which was not disclosed to the distribution licensee while the bid documents were submitted. The aforesaid environmental clearance granted to JSW was challenged by way of an appeal before the National Environmental Appellate Authority (NEAA) which was dismissed by the NEAA by way of its order dated 12.09.2008 and the said environmental clearance granted to JSW was upheld.

v) Further, the said order of NEAA dated 12.09.2008 was challenged by way of a Public Interest Litigation (PIL) in Writ Petition (Civil) No. 388 of 2009 before the Hon'ble Delhi High Court. The Hon'ble High Court by way of its order dated 18.09.2009 directed the Expert Appraisal Committee (Thermal) of the MoEF&CC to re-examine the environmental clearance granted to JSW after considering the reports of KKVD. Pursuant to the abovementioned direction, the said Committee upheld the environmental clearance granted to JSW. In the minutes of the 62nd meeting of the reconstituted Expert Appraisal Committee dated 11.01.2010-12.01.2010, the said Committee had observed that in the future if there was any evidence of damage to the mango, cashew and fisheries, adequate mitigation measures including the installation of FGD system would be adopted by JSW.

vi) The environmental clearance dated 17.05.2007 granted to JSW was revised on 16.04.2010 by way of a communication from the MoEF&CC, considering the reports of the KKVD. On the basis of the said reports of the KKVD, the specific condition that the FGD equipment shall be installed before the commissioning of the project, was imposed. In the instant case, as already highlighted in paragraphs 8-11 of the Petition filed by NPL before the Commission, there were no norms for the installation of the FGD and/or SNCR technology for the reduction in the SO₂ and NO_x emissions respectively, at the time of the submission of the bids. The said emission norms were introduced for the first time by way of the issuance of the Notification by the MoEF&CC dated 07.12.2015. Further, like in JSW Case, there is no reference of an earlier environmental clearance in the Environmental Clearance dated 03.10.2008 granted to NPL.

vii) That in the JSW Case, the condition of the installation of the FGD system was introduced prior to the commissioning of the project i.e. in the construction period unlike the instant case wherein the condition was imposed post the commissioning of the Project i.e., in the operation period.

viii) In addition to the above, the 'Change in Law' clause under the PPA entered into between Maharashtra State Electricity Distribution Company Limited (MSEDCL) and JSW, does not include 'any change in any consents approvals or licenses available or obtained for the project' unlike the 'Change in Law' clause under the PPA in the instant case which is inclusive of any change in the consents/approvals/licenses available or obtained for the Project.

NPL submitted that CERC vide its judgment dated 17.09.2018 in the CGPL Case has also distinguished the facts of the JSW Case from that of the CGPL Case. NPL submitted that from the review of the CGPL Case, it has become apparent that *inter alia* based on the difference in the nature of project i.e., Case 1 (where the seller of power is responsible to arrange all the consents and approvals) versus Case 2 (where the procurer of power is responsible for arranging the initial consents etc.), the CERC has distinguished the JSW Case from that of CGPL Case.

In the present case which is a Case 2 Scenario 4 project, PSPCL being the procurer was responsible for arranging all the consents and approvals and therefore, the aforesaid distinction which was appreciated by the CERC between JSW Case and the CGPL Case is also applicable in the present case. NPL further submitted that there are various significant and cogent factual differences between the JSW Case and the present case and therefore, this Commission like the CERC, in view of such distinguishable factors, may hold that the judgment of the Hon'ble APTEL in the JSW Case is inapplicable to NPL's case.

In reference to the above submissions of NPL, PSPCL contended that the rationale of the judgment is that when the Environment 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 the subsequent communication is merely a confirmation of the requirement. The various distinguishing features sought to be raised by NPL do not impact the above basic finding of the Hon'ble APTEL as under:

a) The award of project being under Case 1 or Case 2 of Competitive bidding guidelines have no relevance. As already submitted herein, what is relevant is the conditions envisaged in the Environment Clearance. Hon'ble APTEL has specifically held that the requirement of FGD was already envisaged in the Environment Clearance which provided for space for such FGD and funds to be allocated – similar to the case of NPL.

b) The issue of Modification of Environment rules being the reason for requirement of FGD does not take away the basic principle of the decision of Hon'ble APTEL that the FGD was already envisaged at the time of Environmental Clearance. Once the FGD was already envisaged, the subsequent confirmation of the requirement of FGD cannot be considered as change in law. This contention of NPL is also negated specifically by the Ministry of Power in its Letter dated 30.05.2018 which provided that if FGD was already envisaged, there is no change in law. It has been stated provided in the aforesaid letter dated 30.05.2018 as under:

“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:

.....

(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;”

c) The requirement of space provision for installation of FGD was not necessarily linked to the additional study to be carried out. If the above contention of NPL is accepted, then there should have been no such requirement in the NPL's Environment Clearance as there was no issue of plantation or marine fisheries. Hon'ble

APTEL had considered the fact that the requirement of space for FGD and funds to be earmarked meant that the FGD had already been envisaged.

d) The issue of non disclosure of the pending litigation is not relevant in this case.

e) The proceedings against the Environment Clearance or the additional study being carried out in the case of JSW, does not change the premise of Hon'ble APTEL's decision that the original Environment Clearance by requiring the space for installation of FGD and earmarking of funds, had already envisaged the requirement of FGD and the installation of FGD subsequently is not a change in law. It is not open for NPL to argue that there was no requirement of installation of FGD when the Environment Clearance specifically required that the space for FGD be provided. There would have been no need for provision of space for installation of FGD if the requirement had not been envisaged.

f) Further even in case of JSW where the Additional Study was to be conducted, the issue is whether the FGD was contemplated prior to the cut-off date. JSW had also contended that it could not have contemplated the requirement to install the FGD. Hon'ble APTEL rejected the said contention, because the two conditions in the Environment Clearance were already there. This is also true in the NPL case.

g) The requirement of FGD prior to or after commissioning of the Power project has no relevance to whether such requirement is a change in law as per the PPA or not.

h) The alleged difference in the Change in Law clauses of PPA between JSW and MSEDCL and the PPA between NPL and PSPCL is not relevant. Hon'ble APTEL in JSW Case had not rejected the claim of change in law on the basis that the change in consents were not recognized under Change in Law. In fact Hon'ble APTEL has compared the two Environment Clearances of JSW and held that there is no change.

PSPCL submitted that Hon'ble APTEL has repeatedly recognized that the provision of requirement of space for installation of FGD at a later stage and the earmarking of funds for environmental measures means that the original Environment Clearance had already envisaged the FGD and therefore, the requirement of installation of FGD at a later stage is not a change in law. The reasoning of Hon'ble APTEL would have survived even without the alleged distinguishing facts of JSW as relied upon by NPL.

Considering the above submissions of PSPCL and NPL regarding Hon'ble APTEL's judgment dated 21.01.2013 in Appeal no. 105 of 2011 in JSW Energy Limited (JSW) Vs. Maharashtra State Electricity Distribution Co. Ltd., the Commission holds that the facts in the case of JSW are similar to the present case of the petitioner and hence the judgment of the Hon'ble APTEL dated 21.01.2013 is applicable in case of NPL. The Commission has dealt with the issue in detail later in this Order.

NPL submitted that the space provision for the installation of FGD was in fact a standard clause in the environmental clearances for the majority of the power projects. However, the MoEF&CC had no intention, at the time of grant of the said

environmental clearances, of imposing the installation of the FGD equipment as a mandatory pre-condition. NPL submitted that this is further established by the fact that all these power projects have been commissioned or are in the process of being commissioned without there being any insistence/requirement/legal mandate for the installation of the FGD equipment by the MoEF&CC until the issuance of the Notification. NPL further submitted that in contrast to the aforesaid clause in the first category of the environmental clearances, in the second category of the environmental clearances, the MoEF&CC had specifically mandated the installation of the FGD equipment as a statutory condition. NPL has submitted the list of such power projects including the copy of their environmental clearances, for which the FGD installation was required as a statutory mandate in their environmental clearances.

NPL submitted that the said condition requiring space to be kept for FGD as set out in NPL's Environmental Clearance dated 03.10.2008, only required the Petitioner to provide for adequate space for installation of the above systems, which was duly complied with by the Petitioner in terms of the Land acquired by the Respondent prior to submission of bids as mentioned above. The intention behind incorporation of the said provision could not have been to factor in the capital and operation and maintenance cost associated with installation of the FGD system and SNCR system as well. The said condition was incorporated to ensure that in case the Government decided to notify certain norms for installation of FGD systems in future, as has been done in the instant case, the project developers should not claim inability to comply with the same on account of unavailability of land.

NPL further submitted that a project developer cannot be expected to build in such a significant cost as regards the installation of the FGD system and/or SNCR system as a part of the capital cost of the Project based on a mere possibility that the FGD system and/or SNCR system might have to be installed at a future date. Assuming if no Notification would have been issued by the MoEF&CC during the term of the Project, then the consumers of Punjab would have paid a higher tariff without installation of such equipment.

NPL submitted that there was no directive from the MoEF&CC to keep a separate fund for the installation of the FGD equipment, that NPL has not done so and the MoEF has never raised any objection in the matter. NPL supported its contention by quoting the CERC order in regard to Adani Project. The relevant part of the CERC Order in Adani Case is as under:

“.....

32. It is evident from the above that the Petitioner had not earmarked funds for installation of FGD in the year-wise expenditure submitted to MOE&F on environmental protection measures in compliance with the ECs dated 13.8.2007 and 21.10.2008. It is pertinent to mention that MOE&F had also not raised any objections for not earmarking funds towards installation of FGD in terms of the ECs dated 13.8.2007 and 21.10.2008 respectively. In this background, we are of the view that the installation of FGD in Phases I & II of the project was not mandatory, except for space provisions for FGD and the Petitioner could have reasonably assumed that similar condition would only be imposed for Phase III of the project. Accordingly, the Petitioner could not have been expected to factor the cost of installation of FGD in the bid for Phase III. We therefore conclude that the installation of FGD was not a mandatory

requirement as on the cut-off date (19.11.2007) and was made mandatory post the cut-off date vide the EC dated 20.5.2010 granted to the Petitioner for Phase III (units 7 to 9) of Mundra UMPP..."

NPL submitted that CERC in the CGPL Case has also taken a similar view as in the Adani Case. NPL further submitted that since the two conditions of keeping space and earmarking funds for the environmental protection measures which were stipulated in the environmental clearance for Adani's Phase I and Phase II respectively and CGPL Case are *pari materia* to the conditions stipulated in case of NPL's Environmental Clearance, installation of FGD cannot be said to be a mandatory stipulation in NPL's case.

In reference to the above, PSPCL contended that the decisions of the Central Commission are not binding on this Commission. Further the decisions have to be considered as per the aspects on which the same have been distinguished from the decision of Hon'ble APTEL. The case of Adani Power Limited was different since the original Environment Clearance issued to Adani Power Limited provided for the installation of FGD and the same was subsequent to the cut-off date. The issue of FGD being already envisaged in the Environment Clearance prior to the cut-off date was not in issue as in the present case and the case of JSW. CERC had distinguished the decision of Hon'ble APTEL in JSW Case on the basis of this specific point. The facts of NPL Case are similar to JSW Case and not Adani Power Case.

The Commission notes that in the case of Adani Power Limited Vs. Uttar Haryana Bijli Vitran Nigam Limited & Anr. (Petition No. 104/MP/2017), the original Environmental

Clearance which provided for the installation of FGD for phase-III of the project was issued subsequent to the cut-off date whereas in the instant case the Environmental Clearance was provided prior to the cut-off date. As such the facts of Adani case are different than in the instant case for which the Commission is relying upon the judgment dated 21.01.2013 of Hon'ble APTEL in JSW case where the facts are similar.

NPL submitted that the Environmental Clearance granted to it was extended twice i.e. in the year 2010 and 2014 by way of which the MoEF&CC had inserted various new conditions to the Environmental Clearance granted in 2008. Further, the Consent to Operate was granted to NPL by the PPCB on 09.10.2013 and 17.04.2014 respectively and further extended in the year 2015. The MoEF&CC/PPCB extended and/or renew the Environment Clearance and the Consent to Operate respectively without raising any objection on the issue of non-installation of FGD/not earmarking funds for FGD by NPL, which shows that installation of FGD was not mandated in the Environmental Clearance. With reference to the Commission's queries regarding the environmental compliance reports submitted to MoEF&CC and PPCB, NPL contended that the reports filed had shown high emissions of SO₂ and NO_x. Had the instructions been mandatory, MoEF&CC and PPCB in view of the higher emission of SO₂ would have already directed NPL to install FGD long back.

PSPCL submitted that NPL has contended that it had not provided for funds for FGD in the Funds earmarked for implementation of environment protection measures and further sought to submit that such non provision justifies its claim that the FGD was not envisaged in the original Environment Clearance.

Thus, NPL is seeking to take advantage of its own wrong in not providing for funds required under the Environment Clearance. It was the obligation of NPL to comply with the terms and conditions of the Environment Clearance and any failure on part of NPL to do so cannot be a reason to claim that such condition was not part of the Environment Clearance. PSPCL further submitted that the contention of NPL that there was no directive from the MoEF or any other authority to keep a separate fund for the installation of FGD equipment or that the Consent to Operate were being issued despite the above absence of funds is misconceived. Merely because no objection was raised by MoEF does not mean that the Environment Clearance did not provide for the same. The contention is also contrary to the decision of Hon'ble APTEL in JSW case. In that case also, JSW had not allocated the funds for FGD. However that does not change the fact that the Environment Clearance provided for such requirement.

The Commission asked for the break-up of earmarked funds for environment protection measures. The Environmental Clearance mentioned that these funds shall not be diverted for any other purpose. It was incumbent upon NPL to earmark funds for all environment protection measures and not to divert these funds. Obviously diversion could only take place if there was no immediate need for those funds. It was NPL's obligation to earmark the funds inter-alia for FGD and the same should have been done. NPL has submitted to MoEF the expenditure statements regarding funds spent on environmental protection measures but has not furnished the funds earmarked for the same. NPL submitted the break-up of the expenses of Rs. 859.01 crore

upto March, 2014 on environmental protection measures such as electrostatic precipitators, chimney, cooling towers, ash handling, ash dyke, control of fire & explosion hazards and green belt, afforestation and landscaping etc. The argument of NPL that MoEF&CC did not ask for such details and hence no separate funds were required to be kept for installing FGD at a later date is not tenable as MoEF&CC would have expected that all the mandates in the Environmental Clearance would be complied with by NPL.

In view of the above, the Commission is of the opinion that the plea of NPL that MoEF&CC/PPCB extended/renewed the Environment Clearance and Consent to Operate without raising any objection on separate funds having not been kept for the retrofitting of FGD, is not sustainable.

The Commission notes that PSPCL has submitted that as per the TCE Report submitted by NPL, the combustion tuning and performance enhancement of the existing combustion control technologies can reduce the NO_x level by 40% i.e. resulting in 309 to 405 mg/Nm³ for the design coal and 336 for the worst coal at full load and 371 to 405 at part load operations. PSPCL has further submitted that the reduction in emission level of NO_x is within the control of NPL by way of the existing combustion technology. In this regard, NPL submitted that the emission norms of the Notification with respect to NO_x cannot be achieved by the existing combustion control technologies even after suitable combustion tuning and optimization and readings are the actual recordings of these technologies in operation. NPL submitted that even otherwise, the range of 336 to 405 mg/Nm³ is non-compliant with the prescribed limit of 300 mg/Nm³. There is no proven technology

which has been recommended by the CEA with respect to controlling NOx emission level in terms of the Notification. NPL submitted that CERC in its order dated 17.09.2018 in the case of Coastal Gujarat Power Limited Vs. Gujarat Urja Vikas Nigam Limited & Ors. (Petition No. 77/MP/2016) laid down that when the environmental clearance was made available to CGPL, there was no emission standard in the EP Rules, the requirement towards meeting new emission norms for NOx prescribed in the Notification qualifies as Change in Law under the PPA. NPL further submitted that it will have to incur additional expenditure towards the installation of the SNCR technology/alternate technology as may be recommended by CEA in order to comply with the new emission limits of NOx. NPL submitted that the issuance of the notification squarely falls within the meaning of 'Change in Law' as agreed between the parties under the PPA. The impact of the said 'Change in Law' event is in the 'Operating Period' of NPL's Project as it has occurred after the commercial operation date of the last unit of the Project i.e. on 10.07.2014. NPL submitted that, therefore, it is entitled to compensation in the form of an upward tariff adjustment for 'Change in Law' in accordance with Article 13 of the PPA.

NPL further submitted that CERC in the Adani Case has already allowed the compensation under the 'Change in Law' provision towards the impact on account of increase in auxiliary power consumption on account of installation of FGD as well as operation & maintenance cost towards operation of FGD.

PSPCL submitted that NPL has claimed the changes only in terms of the emission norms related to Sulphur Dioxide (SO₂) & the installation of FGD and the emission norms related to Nitrogen

Oxide (NO_x) & the installation of SNCR. However, in relation to the other emission norms and water norms, there has been no claim by NPL and the same therefore, is not required to be considered. NPL is already meeting the emission limits for Suspended Particulate, Mercury as well as for water consumption. The issues raised by NPL in the petition have to be considered with reference to the specific provisions of Article 13 in the PPA. Further, the relief, if any, is to the extent contemplated in the said Article 13. The principle of restoration to the same economic position, as claimed by NPL is subject to the above qualification. The obligation to comply with the Environment norms is the responsibility of NPL and the same is not dependent on any approval of the Commission or concurrence of PSPCL. NPL cannot seek to delay or avoid any of its obligations on the basis of the pendency of the present petition. PSPCL further submitted that there is no provision in the PPA for grant of an in-principle approval before the expenditure has been incurred. There cannot be any upward revision in tariff at this stage. The compensation, if any, is also payable under Article 13 only after the expenditure has incurred. NPL cannot seek in-principle approval of an estimated project cost. Therefore, the petition is premature at this stage. PSPCL submitted that Article 13.1.1 recognizes as change in law only those events, which affect the cost and revenue from business of selling electricity. Therefore, unless there is an impact on cost or revenue, there can be no change in law.

PSPCL submitted that NPL has claimed the amendment in Environment (Protection) Rules as the Change in Law. However, for the change in law provision, the law as prevailing on the cut-off date for NPL is to be considered, including the requirement for

various consents and clearances to be obtained and the conditions imposed therein. NPL was aware, as on the cut-off date that the project required to obtain various consents and clearances and the Environment Authorities were entitled to impose conditions for such clearances and conditions. Therefore, to the extent that the Environment Clearance or Consents provide for a condition on the operations of the NPL's power project prior to the Amendment to the Rules, then to that extent, the Amendment is not a change in law since NPL was already subject to the said conditions. This has also been recognized in the Ministry of Power letter dated 30.05.2018 to the Central Electricity Regulatory Commission.

PSPCL further submitted that the Amendment can be considered a Change in Law only to the extent that it imposes new conditions or makes the existing conditions more stringent. The Environment Clearance required NPL to monitor the emission standards, inter alia, of SO₂ and NO_x and ensure that the same are within prescribed limits. NPL was also not permitted to use coal with greater than 0.5% sulphur content. The National Ambient Air Quality Standards had also prescribed emission norms for the area. Therefore, it is quite possible that NPL was already subject to the said conditions by way of other clearances, consents or standards to meet the same standards as is required to be met now under the amended Rules. Further, the effect of any change in law subsequent to the cut-off date is restricted to the incremental cost or additional expenditure on installation or upgradation of the plant and equipment to be installed by reason of change in law over and above the expenditure which was in any

event required to be incurred even in the absence of such change in law and not for the entire capital expenditure.

PSPCL contended that NPL has claimed the expenditure on installation of FGD as change in law. This is based on the premise that there was no stipulation or condition for installation of FGD on the cut-off date. NPL has relied on the Letter dated 30.05.2018 by Ministry of Power, Government of India being policy direction under Section 107 of the Electricity Act, 2003. Though the said policy directions are to Central Commission and not to State Commission and even otherwise not binding on the Commissions, it is submitted that the said Policy direction clearly provide that in case the pollution control system was either mandated or otherwise envisaged before the notification of the amendment rules, there is no change in law for such cases. The installation of FGD was already envisaged before the notification of the amendment rules. PSPCL submitted that the contention of NPL that the Environment Clearance only provided for space for retrofitting of FGD and did not require the actual installation of FGD is contrary to the above letter by Ministry of Power dated 30.05.2018 which recognizes that there is no change in law in respect of *“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”*. The Letter thus recognizes two situations – where the pollution control system is mandated and where it is envisaged. The mandate and envisaging of measures are two different considerations and even if there is no specific mandate, the measures can still be envisaged. Therefore, even if the Environment Clearance does not mandate installation of FGD, it

may still envisage the installation/retrofitting of FGD and in such cases also, there is no change in law with regard to FGD.

PSPCL further submitted that the said aspect has been considered by the Hon'ble APTEL in M/s JSW Energy Limited v. Maharashtra State Electricity Distribution Co. Ltd and Another dated 21.01.2013 in Appeal No. 105 of 2011. The Environment Clearance granted to JSW had the similar conditions as cited in the foregoing paras in NPL's Clearance. Hon'ble APTEL held as under:

“

50. Summary of Our Findings

(i) The Environmental Clearance dated 17.5.2007 provided for installation of the FGD at a later stage. It further mandated that separate funds must be allotted for installation of the said FGD, which are to be included in the project cost. Admittedly, these conditions have not been complied with by the Appellant after getting the Environmental Clearance.

(ii) On a careful perusal of the relevant clause of the PPA, the Environmental Clearance dated 17.5.2007 and the letter issued by the Central Government on 16.4.2010, it is clear that there is no “Change in Law” as contemplated by the PPA. In fact, the letter dated 16.4.2010 issued by the Central Government merely confirms the requirement of installation of the FGD intimated through the letter dated 17.5.2007. It merely informs the Appellant the state of the installation of the FGD. Therefore, there is no “Change in Law” as claimed by the Appellant. The reasonings given in the impugned order for rejecting the claim of the Appellant are perfectly valid in law.”

PSPCL submitted that it is not dealing with the issues relating to costs etc. in the CEA Report at this stage and further submitted that it does not accept that opportunity costs or engineering costs etc. have to be considered. PSPCL submitted that CEA vide its letter reference no. 44/FGD/UMPP/

CEA/2018/735 dated 25.09.2018 has reduced the maximum indicative cost i.e. CAPEX of FGD system from Rs. 0.5 crore per MW to Rs. 0.4 crore per MW stating that the prices have further come down.

As regards installation of SNCR, PSPCL submitted that the CEA Report does not deal with the abatement of NOx emission and does not recommend any technology for the same. PSPCL further submitted that NOx emissions can be controlled by various measures and can be reduced by 40% with existing equipment. The same is within the control of the NPL and no additional expenditure can be considered in this regard. The combustion technology is already existing and NPL is required to maintain it. Even the Letter dated 11.12.2017 from CPCB refers to the pre combustion modification etc. and installation of SCNR system where needed. PSPCL submitted that NPL can reduce the emissions significantly by adopting all measures possible and there may not be any requirement of SNCR or in any case, even if there is a requirement of SNCR, it can be of much lower capacity than claimed by NPL. PSPCL further submitted that it does not admit the costs claimed by NPL, particularly in the absence of any CEA analysis or recommendation in this regard.

Decision of the Commission

Considering the above submissions and contentions of the parties, Commission's observations and decision are as under:

- i) The relevant extracts of Hon'ble APTEL's judgment dated 21.01.2013 in Appeal No. 105 of 2011 in the matter of M/s JSW

Energy Ltd. Vs. Maharashtra State Electricity Distribution Co. Ltd. and Anr. are as hereunder:

“
38. Let us again refer to the conditions in the Environmental clearance dated 17.5.2007:

“(ii) the detailed study regarding the impact of the project, if any, on Alphanso mango and marine fisheries as recommended in the report of Dr. B.S. Konkan Krishi Vidyapith shall be undertaken. Based on the same, additional safeguard measures as may be required will be taken by the proponent with prior approval of the Ministry of Environment and Forests. A copy of the report will be submitted to the Ministry. **The cost towards undertaking the study and implementation of safeguard measures if any, will be borne by the project.**

(iii) Space provision shall be made for installation of FGD of requisite efficiency of removal of SO₂, if required at later stage.

.....
(xx) Separate funds should be allocated for implementation of Environmental protection measures along with item wise break up. These cost should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year wise expenditure should be reported to the Ministry”.

39. So, the reading of the conditions in entirety referred to in the Environmental clearance would make it clear that there was a mandate with regard to the requirement of earmarking of funds for FGD as well. The study to be carried out was specific to the case of the Appellant's plant as it is recorded that the study is to be carried out in terms and the recommendations in the report of KKVD. This has been referred to in the order of the Delhi High Court while reference was made to the minutes of the 42nd Meeting of the Expert Appraise Committee.

40. The contention of the Appellant to the effect that Environmental clearance did not require the installation of FGD is to be accepted, then the said Environmental clearance would have categorically stated that FGD is not

required and in that event, the directions for such specific funds allocation would not have been issued.

41. On the other hand, as mentioned above, there is a specific requirement regarding space as well as separate fund allocation.

42. This can be viewed from yet another angle. Admittedly, the Appellant was declared as a successful bidder after competitive bidding process. As indicated above, the Environmental clearance dated 17.5.2007 contemplated installation of FGD at a later stage with inclusion of cost for all Environmental measures in the project cost. If the claim of the Appellant is to be accepted, then it would defeat the sanctity of the competitive bidding process. Not only that, the other bidders who had participated in the bidding would also be pre-judicially affected. In fact, the Appellant after ignoring the relevant conditions referred to in the Environmental clearance relating to the inclusion of project cost has allegedly submitted the bids without FGD cost, getting into the zone of consideration in the bidding process having been bidder L-3 and thereafter revising the project cost. Due to this, the entire bidding process and the interest of other bidders get vitiated.

43. Even the mandate contained in Clause 13 of the PPA relating to the change in law clearly stipulates that the change in law can be taken into consideration only in respect of occurrence of events after the cut-off date which is 7 days prior to the dead line. In the present case, the cut-off date is 14.2.2008. In a Regulatory regime, the sanctity of the PPA and the representation and warranties made by the parties in entering into such agreements have to be given due consideration. The claim of the Appellant cannot be permitted to vitiate the bidding process and to pre-judicially affect other bidders.

.....”

- ii) The relevant clauses of the Environmental Clearance dated 03.10.2008 granted to NPL read as under:

“(vi) Space provision shall be kept for retrofitting of FGD, if required at a later date.

.....

(xxv) Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These costs shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry."

- iii) As per clause 5.5 of the PPA, NPL shall be responsible for obtaining consents (other than those required for the Interconnection and Transmission Facilities and the Initial Consents) required for developing, financing, constructing, operating and maintenance of the project. Not only that, NPL shall be responsible for obtaining, maintaining and renewing the initial consents and also for fulfilling all conditions specified therein. Clause 5.5 of the PPA is quoted below:

"5.5 Consents

The Seller shall be responsible for obtaining all Consents (other than those required for the Interconnection and Transmission Facilities and the Initial Consents) required for developing, financing, constructing, operating and maintenance of the Project and maintaining/ renewing all such Consents in order to carry out its obligations under this Agreement in general and this Article 5 in particular and shall supply to the Procurer promptly with copies of each application that it submits, and copy/ies of each consent/approval/license which it obtains. For the avoidance of doubt, it is clarified that the Seller shall also be responsible for maintaining / renewing the Initial Consents and for fulfilling all conditions specified therein."

- iv) That apart, as per Clause 3.1.2 (i) of the PPA, the NPL shall have received the initial consents either unconditionally or subject to conditions which do not materially prejudice its right or performance of its obligations under the agreement. Thus, all these clauses of the PPA cast the burden on NPL. Clause 3.1.2 (i) of the PPA is quoted below:

“3.1.2

i) the Seller shall have received the Initial Consents as mentioned in Schedule 2, either unconditionally or subject to conditions which do not materially prejudice its rights or the performance of its obligations under this Agreement.”

v) Article 13 of the PPA reads as under:

“13. 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 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

(iii) 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 Procurer 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 (c) the cost of implementing Environmental Management Plan for the Power Station (d) Deleted but shall not include (i) any change in any withholding tax on income or dividends distributed to the shareholders of the Seller, or (ii) change in respect of UI charges or frequency intervals by an Appropriate Commission.

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.

13.2 Application and Principles for computing impact 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.

(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 Appropriate 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 the Letter of Credit in aggregate for a Contract Year.

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 Procurer of such Change in Law as soon as reasonably practicably 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 the Procurer 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 Procurer contained herein shall be material. Provided that in case the Seller has not provided such notice, the Procurer shall have the right to issue such notice 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 13.2.

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
- (ii) 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.”

- vi) **The Commission notes that conditions (vi) & (xxv) of the Environmental Clearance dated 03.10.2008 mandated that NPL shall provide space to retrofit FGD if required at a later date and shall allocate funds for implementation of all the environmental protection measures. It also provided that NPL shall not divert the said funds for any other purpose. The earmarking of funds for all environmental protection measures had to be done at the beginning. The details of environmental protection measures were not spelt out but obviously flowed from the conditions mentioned in the Environmental Clearance. NPL was also enjoined not to divert the funds since expenditure was to be reported to**

the Ministry. The Ministry wanted to know only about the expenditure made on various environmental protection measures and not about the earmarking of funds. Earmarking of funds and not diverting the same for other purposes was the responsibility of NPL. Though NPL complied with condition (vi) for providing space for retrofitting of FGD, it did not allocate funds for retrofitting FGD system. Thus, NPL did not fully comply with the requirement of FGD as contemplated in the Environmental Clearance.

- vii) Perusal of the Environmental Clearance granted to NPL project and JSW project as brought out in the foregoing paras clearly reveals that there is no difference in the two with regard to FGD.

In fact a plain reading of condition (xxv) of the EC granted for NPL project and condition (xx) of the EC granted for JSW project reveals that the language in NPL case is rather specific in so much as it uses the word 'shall' while directing for (i) allocation of funds for implementation of environmental protection measures along with item-wise break-up, (ii) including these cost as part of the project cost and (iii) not diverting the said funds for other purposes, as compared to JSW case where the word used is 'should' for similar directions.

- viii) NPL submitted that as per the Environmental Clearance dated 03.10.2008, it was required to install FGD in future and not at that stage, therefore, the installation of FGD system to comply with the new norms as mandated by

Ministry of Environment, Forest and Climate Change, vide notification dated 07.12.2015 amounts to change in law as per the PPA signed between NPL & PSPCL and consequently, NPL is entitled to claim the financial benefits of the said Change in Law. In case the contention of NPL that the Environmental Clearance did not require installation of FGD is considered correct, then the Commission is of the opinion that the Environmental Clearance would have either not included any mention of FGD – space or retrofitting or categorically stated that FGD is not required to be retrofitted. In that case, the directions for funds allocation would not have been issued. As such, the Commission is of the view that the mandate of MoEF was not complied with in totality.

- ix) The Environmental Clearance dated 03.10.2008 provided for retrofitting of the FGD at a later stage and further mandated that separate funds must be allocated for such environmental protection measures which are to be included in the project cost. Admittedly, this has not been complied with by NPL after getting the Environmental Clearance. The notification dated 07.12.2015 issued by the Ministry of Environment, Forest and Climate Change merely confirms the requirement of retrofitting of the FGD intimated earlier. As such, there is no 'Change in Law' as claimed by NPL.
- x) Ministry of Power letter dated 30.05.2018 provides as under:

“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:

....

(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;”

It is seen that the Ministry of Power letter dated 30.05.2018 provided that the MoEF&CC Notification dated 7th December, 2015 requiring compliance of Environment (Protection) Amendment Rules, 2015 is of the nature of Change in law event except in the cases of 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. In this particular case without doubt the retrofitting of FGD was envisaged much before the notification dated 07.12.2015 in the Environmental Clearance dated 03.10.2008.

- xi) The condition no. (vi) as mentioned in the EC dated 03.10.2008 would mandate that the space provision shall be made for retrofitting of FGD at a later stage and condition no. (xxv) provides that separate funds would be allocated for implementation of these conditions. Therefore, the specific direction given to NPL even in the Environmental clearance would reveal that it was duty bound to include the fund allocation in the project cost. Admittedly, this was not done. The reading of the conditions in entirety referred to in the Environmental clearance would make it clear that there was a mandate with regard to the requirement of

earmarking of funds for FGD as well. If the contention of NPL to the effect that Environmental clearance did not require the retrofitting of FGD is to be accepted, then the said Environmental clearance would have either not mentioned the space provision or would have categorically stated that FGD is not required and in that event, the directions for such specific funds allocation would not have been issued.

- xii) On the other hand, as mentioned above, there is a specific requirement regarding space as well as separate fund allocation. NPL was declared as a successful bidder after competitive bidding process. As indicated above, the Environmental clearance dated 03.10.2008 contemplated retrofitting of FGD at a later stage with inclusion of cost for all Environmental measures in the project cost. At this point of time the Commission cannot determine if the other bidders included provision for funds for retrofitting of FGD in their bids. NPL states that it did not. NPL cannot be allowed to take advantage of its successful bid at that stage, to wriggle out of its obligation to install the FGD etc.
- xiii) Further, clause 13 of the PPA pertaining to the change in law stipulates that the change in law can be taken into consideration only in respect of occurrence of events after the cut-off date which is 7 days prior to the bid deadline. In case of NPL's project the cut-off date was 02.10.2009. The Commission is of the view that the sanctity of the PPA and the representation and warranties made by the parties in entering into such agreements have to be given due

consideration. The claim of NPL cannot be permitted to vitiate the bidding process and prejudicially affect other bidders.

- xiv) After admitting that it has not complied with the conditions laid down in the Environmental Clearance, NPL cannot now claim for enhancement in the capital cost and tariff. The general public, consumers of electricity cannot now be asked to pay for NPL's mistake or deliberate omission.
- xv) On a careful perusal of the relevant clauses of the PPA, the Environmental Clearance dated 03.10.2008, the notification dated 07.12.2015 issued by the Ministry of Environment, Forest and Climate Change and para 5.1 (b) of the Ministry of Power letter dated 30.05.2018, the Commission finds that there is no "Change in Law" as contemplated in the PPA. The Notification dated 07.12.2015 issued by MoEF&CC merely confirms the requirement of retrofitting of the FGD intimated through the letter dated 03.10.2008. Therefore, the Commission holds that there is no "Change in law" as claimed by NPL.
- xvi) The Commission further observes that the retrofitting of FGD has now become mandatory in terms of compliance of MoEF&CC notification dated 07.12.2015 which is applicable for all operational thermal power stations. Further to this, Central Pollution Control Board vide letter dated 11.12.2017 issued directions to NPL under Section 5 of the Environment (Protection) Act, 1986 for compliance of the emission limit notified vide notification No. S.O. 3305 (E) dated 07.12.2015. In the aforesaid letter it has been directed

by CPCB that NPL shall install FGD by 31.12.2019 in Unit 1 & 2 respectively so as to comply with SO₂ emission limit. The Commission directs that the requirement to retrofit FGD by the specified date be complied with by NPL.

xvii) The Commission notes that NPL submitted that the estimated capital expenditure to be incurred by it for complying with the MoEF&CC Notification dated 07.12.2015 is approximately Rs. 1.345 crore per MW and in addition Rs. 7.73 lakh per MW per year on account of operating and raw material cost would need to be incurred. The Commission further notes that Central Electricity Authority vide its letter no.44/FGD/UMPP/ CEA/2018/735 dated 25.09.2018 addressed to SE/Projects, Thermal Design, PSPCL with copy to PSERC informed that CEA vide letter dated 20.07.2018 had provided recommendation report to NPL wherein it was also specified that NPL would determine the cost of retrofitting of FGD system through competitive bidding in consultation with PSPCL. The maximum indicative cost i.e. CAPEX mentioned in the report is Rs 0.5 crore per MW. CEA vide its aforesaid letter dated 25.09.2018 has informed that the prices have further come down to Rs 0.4 crore per MW and suggested that while closing the cost for retrofitting FGD system, the present market conditions should be looked into for an optimum cost. NPL shall ensure that it follows CEA's recommendation.

xviii) As regards the NO_x emissions limit, CPCB in its aforesaid letter dated 11.12.2017 has directed NPL to take immediate

measures like installation of low NOx burners, provide Over Fire Air (OFA) system etc. and achieve progressive reduction so as to comply NOx emission limit by the year 2019. **CEA in its report dated 20.07.2018 has not indicated any technology for meeting the NOx emission standards. In view of the above, the Commission is not inclined to consider the plea of NPL for the installation of SNCR to comply with NOx emissions specified in the MoEF&CC notification dated 07.12.2015 at this stage.**

The petition is disposed of in terms of above.

**Sd/-
(Anjali Chandra)
Member**

**Sd/-
(S.S. Sarna)
Member**

**Sd/-
(Kusumjit Sidhu)
Chairperson**

Chandigarh
Dated: 09.01.2019