MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

5th Floor, "Metro Plaza", Bittan Market, Bhopal - 462 016

Petition No. 31 of 2015

PRESENT:
Dr. Dev Raj Birdi, Chairman
A.B. Bajpai, Member
Alok Gupta, Member

IN THE MATTER OF:

Determination of the provisional tariff for 2x600 MW coal based Thermal Power Plant at District Anuppur (M.P.)

M/s. M.B. Power (Madhya Pradesh) Ltd. **Hotel Govindam Complex, Kotma Road,** **Anuppur**	**Petitioner**

V/s

1. M.P. Power Management Company Ltd., Jabalpur **2. M.P. Poorv Kshetra Vidyut Vitaran Co. Ltd., Jabalpur** **3. M.P. Madhya Kshetra Vidyut Vitaran Co. Ltd., Bhopal** **4. M.P. Paschim Kshetra Vidyut Vitaran Co. Ltd., Indore**	**Respondents**

ORDER

(Passed on this day of 29th July' 2015)

1. M/s. M.B. Power (Madhya Pradesh) Ltd. filed the Petition No.19 of 2014 on 22nd October'2014 for determination of provisional tariff for its 2 x 600 MW coal based thermal power project at District Anuppur, M.P. for the period from 30th November, 2014 (anticipated COD of Unit No. 1) to FY 2015-16. This petition was filed under section 62 and 86 (1)(a) of the Electricity Act, 2003 read with MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2012.

2. The Petitioner's generating station is for a total capacity of phase-I of the project 1200 MW with 2 units of 600 MW each. The Unit-No.1 has now been declared under commercial operation on 20.5.2015 and the Unit No.2 of the generating station has not been declared under commercial operation as on the date of issue of this order.

3. The petitioner broadly submitted the following in its petition:

(i) *MB Power (Madhya Pradesh) Limited (herein referred to as ("MBPMPL/ Petitioner") being a generating company within the meaning of Section 2 (28) of the Electricity Act, 2003 is filing the present tariff petition for determination of tariff for supply of power from its Phase I, 1200 MW (2 x 600 MW) sub-critical coal based thermal power project in District Anuppur, Madhya Pradesh. Unit I of the Project is commencing from November, 2014. The Petitioner has entered into a PPA with Madhya Pradesh Power Management Company Ltd. formerly known as Madhya Pradesh Power Trading Company Limited (hereinafter "Respondent No.1") on 05.01.2011 and amendment to the afore-stated PPA on 31.07.2013.*

(ii) *The Government of Madhya Pradesh vide Notification dated 03.06.2006 notified the MP Electricity Reforms Transfer Scheme Rules, 2006 for regulating transfer and vesting the functions, properties, interest, right and obligations of Madhya Pradesh State Electricity Board relating to Bulk Purchase and Supply of Electricity along with related agreement/arrangements in the State Government and transfer and re-vesting thereof by the State Government in Respondent No. 1.*

(iii) *Pursuant to the Notification dated 03.06.2006, the Petitioner entered into two separate PPA's being:*

(a) PPA dated 05.01.2011 with Respondent No. 1 being the lead procurer for Madhya Pradesh Poorva Kshetra Vidyut Vitran Nigam Limited (hereinafter "Respondent No.2"), Madhya Pradesh Madhya Kshetra Vidyut Vitran Nigam Limited (hereinafter "Respondent No.3") and Madhya Pradesh Paschim Kshetra Vidyut Vitran Nigam Limited (hereinafter "Respondent No.4") for supply of an aggregate of 30% of the installed capacity of the Project for a period of 20 years at Regulated Tariff to be determined by the Commission; of the Project (hereinafter "Non-Concessional PPA"): and

(b) PPA dated 04.05.2011 with GoMP (Respondent No.1 being the nominated agency) for supply of 5% of the net power generated comprising of variable charges to be co-terminus with the life of the Project (hereinafter "Concessional PPA").

The first unit of the Project is scheduled to be commissioned in November, 2014 and the second unit is scheduled to be commissioned in May, 2015. Copies of the PPA dated 05.01.2011, First Addendum dated 31.07.2013 and PPA dated 04.05.2011 are attached hereto and marked as ANNEXURE P-1.

(iv) The Commission vide Order dated 07.09.2012 in Petition No. 7 of 2012 and Order dated 04.02.2013 in Petition No. 82 of 2012 has accorded approval to the Non-Concessional PPA. Copies of the Orders dated 07.09.2012 and 04.02.2013 are attached hereto and marked as ANNEXURE P-2.

(v) Respondent No.1 is a government company as defined under Section 617 of the Companies Act, 1956. Respondent No.1 is an unbundled entity of the Madhya Pradesh State Electricity Board. Respondent No. 1 is a trading licensee, entitled to undertake transaction of sale and purchase of electricity and is the Holding Company of all Distribution Licensees within the State of Madhya Pradesh. Respondent No.1 has entered into the Non- Concessional PPA with the Petitioner on 05.01.2011 for supply of 30% of installed capacity from the Petitioner's Project on regulated tariff wherein Respondent No.2 to 4 who are Distribution Licensees and who are confirming parties and also the ultimate beneficiaries of the PPA.

(vi) The total capital cost claimed for tariff determination in the present Petition is Rs. 8,306.03 Crore, as per the details specified herein below. It is further submitted that the capital cost is being funded by debt and equity in the ratio of 73.6:26.4 with a Debt of Rs. 6115.69 Crore and Equity of Rs. 2190.34 Crore, as per the details herein below:

Particulars	**Total (Rs Crore)**	**Debt (Rs Crore)**	**Equity (Rs Crore)**
Estimated Capital Cost	***8,306.03***	***6,115.69***	***2,190.34***
Debt Equity Ratio		*73.60%*	*26.40%*

(vii) The petitioner submits the detailed break-up of the Project cost as tabulated below:

Particulars	**Cost (Rs Crore)**
Land & Site Development	*149.05*
Plant & Machinery	*4,970.29*
Buildings and Civil Works	*1,132.88*
Pre-Operative Expenses/ Pre-Commissioning Expenses	*456.1*
Financing charges	*278.32*
Interest During Construction	*1165.77*
Contingencies	*153.63*
Margin Money	*-*
TOTAL PROJECT COST	***8,306.03***

(viii) It is submitted that the Project has been financed by a consortium of banks and financial institutions. The Lender Consortium comprises of State Bank of India as the Lead Bank and Power Finance Corporation Ltd., Rural Electrification Corporation, PTC India Financial Services Ltd., Axis Bank, L&T Infra, Life Insurance Corporation of India, Punjab National Bank, State Bank of Patiala, State Bank of Bikaner and Jaipur and Federal Bank as Consortium partners. The Petitioner has signed the Common Loan Agreement on 16.11.2010 for an amount of Rs. 4,680 Crore. Further, additional loan of Rs. 1232 Crore has been sanctioned by State Bank of India and Axis Bank on 25.07.2014 and 17.06.2014 respectively.

(ix) The current weighted average rate of interest on disbursed as well as additional Loan works out to be 14.21% per annum.

(x) It is humbly submitted that the Project is being executed through Engineering Procurement Construction (hereinafter "EPC") packages on turnkey basis which contains Boiler Turbine Generator (hereinafter "BTG") and Balance of Plant (hereinafter "BoP") packages including erection and civil works and separate Non-EPC packages. The scope of work under respective packages is as follows:-

- ***EPC Package**: The EPC package consists of Off-shore Supply contract, Onshore Supply contract, Onshore Services contract and Civil & Structural Works contract (as discussed below). International Competitive Bidding (ICB) process was followed to award these Contracts. Notice Inviting Tender ('NIT') was published in Economic Times (all editions) and NIT was also sent to the Embassies. Basis the interest shown by parties, Expression of Interest ('EOI'), containing technical and financial evaluation criteria was issued to the interested parties. The detailed EOI after filling the required details was submitted by the parties along with their credentials. The credentials submitted by the parties were evaluated and Request for Proposal ('RFP') containing the detailed technical specifications was issued to the shortlisted parties. The following 5 parties submitted their bids:*

  1. *Bharat Heavy Electricals Limited (BHEL), India*
  2. *China Datang – Gannon Dunkerley JV, China*
  3. *Essar Construction (India) Ltd, India*
  4. *Lanco Infratech Limited (EPC Division)*
  5. *Punj Lloyd Ltd., India*

  The offers submitted by the parties were evaluated and various rounds of technical and commercial meetings were held. Based upon the final offer submitted by the parties and techno-commercial evaluation, the Letter of Award (hereinafter "LoA") was issued on 15.11.2010 in favor of L1 bidder i.e. Lanco Infratech Limited (EPC Division) (hereinafter "LITL") on evaluated price.

- ***Offshore BTG Contract** –The BTG package for the Project has been sourced by LITL from Harbin Boiler Company, Harbin Turbine Company and Harbin Generator Company from China.*

- ***Onshore BoP Package** - BoP Package consisted of 3 key contracts, namely BoP – Supplies, BoP – Services and BoP – Civil Works. The details of contracts are given herein below:*

  ***a. BoP – Supplies:** The scope of work includes design, engineering, procurement, manufacturing, shop fabrication, testing at supplier's work, packing, supply and insurance of BoP, along with associated auxiliaries, mandatory and essential commissioning spares, tools and tackles;*

  ***b. BoP – Services:** The scope of work includes unloading, handling, transportation, storage, insurance of offshore supplies from the port of arrival to site, unloading, handling, transportation, storage, insurance of onshore* *supplies from the ex-works to site, in-plant transportation, comprehensive insurance during inland transportation, storage, construction, erection, trial runs, performance testing and commissioning at site;*

c. ***BoP – Civil Works:*** *The scope of work includes supply of steel, cement and all other material required for completion of all works including civil & structural works and civil construction/structural/fabrication and other services.*

- ***Non-EPC Package(s):*** *The Petitioner floated a Tender to various reputed agencies containing the technical specifications, Bill of Quantity and Commercial terms and Conditions. The following offers were received by the Petitioner on BOQ basis:*

  1. *M/s Shapoorji & Pallanji Co. Limited, Mumbai*
  2. *M/s Ahluwalia Contractors Limited, Delhi*
  3. *M/s Coastal Project Pvt. Limited (CPPL)*
  4. *M/s D S Construction Limited, New Delhi*

  Technical and Commercial discussions were held with the parties and revised offers were submitted based on final scope of work and discussions. Pursuant thereto, Order was placed to L1 bidder i.e. on M/s Coastal Projects Limited formerly known as Coastal Projects Pvt. Limited, Hyderabad on 17.02.2010. The broad scope of work included construction of external roads, township, site grading, boundary wall, non-plant buildings, sewerage and drainage, ash dyke, raw water reservoir and river water pump house etc.

- ***Owner's Engineer:*** *Tata Consulting Engineers Limited ("TCE") has been engaged as Owners' Engineer by the Petitioner. TCE prepared specifications for EPC bids, reviewed the bids and advised the Petitioner in the award of the contracts. It is also assisting the Petitioner in designing, engineering, and testing.*

(xi) *The plant characteristics are broadly depicted in the table below:*

Unit (s)/ Block(s) Parameters	***Unit - I***	***Unit - II***
Installed Capacity (MW)	*600*	*600*
Pit Head or Non Pit Head	*Non Pit Head*	
Name of the Boiler Manufacture	*M/S Harbin Boiler company Ltd.*	
Name of Turbine Generator Manufacture	*Turbine - Harbin Turbine Co. Ltd.* *Generator - Harbin Generator Company Ltd.*	
Main Steams Pressure at Turbine inlet (kg/Cm2)	*166.7*	

Main Steam Temperature at Turbine inlet (°C)	*538*
Reheat Steam Pressure at Turbine inlet (kg/Cm2)	*32.64*
Reheat Steam Temperature at Turbine inlet (°C)	*538*
Guaranteed Design Gross Turbine Cycle Heat Rate (kCal/kWh)	*1945.70*
Conditions on which design turbine cycle heat rate guaranteed	
% MCR	*100*
% Makeup Water Consumption	*0*
Design Cooling Water Temperature (0C)	*33˚*
Design/Guaranteed Boiler Efficiency (%)	*86.10%*
Design Fuel with and without Blending of domestic/imported coal (Max/Min. Values)	*Ash (%) - 44/40, Moisture (%) - 16/12, Volatile Matter (%) - 26/20, Gross Calorific Value (Kcal/kWh) - Design 3400, Max: 3800/ Min : 3200*
Type of Cooling Tower	*Induced Draft*
Type of cooling system	*Closed cycle*
Type of Boiler Feed Pump	*Turbine driven*
Fuel Details	
-Primary Fuel	*Coal*
-Secondary Fuel	*LDO, HFO*

(xii) The Petitioner was granted Letter of Assurance for supply of 4.99 MTPA coal by SECL (South Eastern Coal Limited) vide letters dated 06.06.2009 and 12.08.2011 and 07.09.2011. Subsequently, the Petitioner entered into CSA (Coal Supply Agreement) with SECL on 26.03.2013 followed by execution of Addendum #1 and Addendum #2 on 20.03.2014. As per this CSA and its subsequent Addenda, the Annual Contracted Quantity (ACQ) of the coal to be supplied by SECL to Petitioner would be in proportion to the percentage of generation covered under the long term PPA executed by the Petitioner with the Discoms either directly or through Power Trading Corporation. Accordingly, the current ACQ as per the CSA and its subsequent Addenda is 1.897 MTPA of coal with a provision to further enhance the same as and when the balance Power Project capacity is tied-up under Long Term PPAs by the Petitioner.

(xiii) It is submitted that coal will be transported by railways through BOXN or BOBR wagons by way of a railway siding being constructed from a point near the Jaithari railway station. Further, Jaithari railway station is at a distance of about 2.5Km from the Project site. Route survey for the railway siding has been completed and DPR has been approved by SECR. Railway Transport Clearance (hereinafter "RTC") has

been obtained from Railway Board on 31.12.2009 for movement of inward coal traffic through the siding. Major portion of railway siding (approximately 75%) falls under the Project premises, the land for which has already been acquired by the Petitioner. However, in order to cater to doubling of track lines as per the revised Engineering Scale Plan (hereinafter "ESP") approved by SECR, 103.23 acres of additional land is required outside the Project premises, which was not envisaged earlier at the time of Financial Closure.

(xiv) It is further submitted that Secondary fuel would be Heavy Fuel Oil (hereinafter "HFO") as per IS 1593 and start up fuel would be Light Diesel Oil (hereinafter "LDO") as per IS 1460: 1995. LDO would be used for light up and initial warm up of units and HFO for start-up and flame stabilization at low loads.

(xv) It is submitted that the Project's consumptive water requirement will be drawn from Son River, which is at a distance of about 6 Km from the Project site. The Petitioner has obtained the consent of the MP Water Resources Deptt. (MPWRD) vide its letters dated 23.10.2008 and signed the Water Supply Agreement on 22.09.2009 for the allocation of 0.065 MAF of water from River Sone to the Project. While River Sone is a perennial river, however, during lean period, the flow in the river reduces significantly. As such, the Barrage of storage capacity 29.23 MCM (including evaporation loss and seepage loss) is being constructed by the Petitioner only for the purpose of storing excess live water during the monsoon which shall be used in the Project during the lean season. The Petitioner has received 'Consent to Establish' and 'Consent to Operate' from MPPCB and Design Drawing Approval from MPWRD for construction of the Barrage. Water will be transported from the barrage to the plant site through a pipeline and a pump system, which is being constructed. In addition to the barrage, a water reservoir of capacity 3.50 MCM (41 days of plant storage requirement) is being constructed in the main plant area.

(xvi) As per the Non-Concessional PPA, the Respondent No.1 is required to obtain open access/ connectivity for evacuation of scheduled energy from the delivery point i.e. ex-bus point of the Power Station Switchyard. Also, as per the First Addendum, Respondent No.1 is required, at its own cost to establish or alternatively, ensure necessary infrastructure through CTU/STU or any other agency beyond the delivery point, required for evacuation of the scheduled energy. The power from each of the 600 MW units will be stepped up to the evacuation voltage level through Generator Transformer and will be evacuated from the Power Project's bus-bar through 400 KV D/C transmission line connecting the Power Project with 765/400kV Jabalpur Pooling Sub-station of PGCIL. The relevant agreements have been signed by the

Petitioner with the concerned agencies. The construction work of this transmission line is near completion and will be operated and owned by PGCIL.

4. With the above contention, the petitioner claimed the following Annual Capacity (fixed) Charges and Energy (variable) Charges of the project:

S. No.	Particulars	Unit	2014-15	2015-16
1	**2**	**3**	**4**	**5**
1.1	*Depreciation*	*Rs Cr*	*401.72*	*401.72*
1.2	*Interest on Loan*	*Rs Cr*	*840.39*	*787.89*
1.3	*Return on Equity*	*Rs Cr*	*514.32*	*514.32*
1.4	*Interest on Working Capital*	*Rs Cr*	*90.97*	*121.94*
1.5	*O & M Expenses*	*Rs Cr*	*167.76*	*181.08*
1.6	*Secondary fuel oil cost*	*Rs Cr*	*47.10*	*50.98*
1.7	*Compensation Allowance (If applicable)*	*Rs Cr*	-	-
1.8	*Special allowance (If applicable)*	*Rs Cr*	-	-
	Total Annual Fixed Cost	***Rs Cr***	***2,062.27***	***2,057.92***
	No. of days in operation for Unit 1	*Nos*	*122*	*366*
	No. of days in operation for Unit 2	*Nos*	-	*306*
	Total Fixed Cost Recovery	***Rs Cr***	***349.18***	***1,889.24***
	Share of MPPMCL as per Non Concessional PPA	***%***	*30%*	*30%*
	Fixed Cost Claimed in this Petition	***Rs Cr***	***104.75***	***566.77***
2	***Variable Charges***			
	Fuel Cost (Coal)	*Rs Cr*	*236.05*	*1,378.25*
	Share of MPPMCL as per Non Concessional PPA	***%***	*30%*	*30%*
	Variable Cost Claimed in this Petition	***Rs Cr***	***70.82***	***413.48***
	Energy Charge Rate ex-bus (Paise/kWh)	*Rs/kWh*	*1.6907*	*1.7921*
3	***Per Unit Charges (Rs/kWh)***	***Rs/kWh***	***4.192***	***4.249***

5. In its petition, the petitioner prayed the following to the Commission:

a. *Pending the determination of the Generation Tariff of the Project as required under the Non-Concessional PPA dated 05.01.2011, determine the Provisional Tariff of the Project/Unit(s);*

b. *Allow the recovery of other fuel related charges and statutory charges as prayed in Paras XXII, XXIII and XXIV of this Petition;*

c. *Allow the recovery of the filing fees as and when paid to the Ld. Commission and also the publication expenses from the beneficiaries;*

d. *The Petitioner respectfully seeks an opportunity to present their case prior to the finalization of the Tariff Order. The Petitioner believes that such an approach would provide a fair treatment to all the stakeholders and may eliminate the need of a review or clarification;*

e. *The Petitioner request the Ld. Commission to condone any inadvertent omissions/errors/ rounding off differences/ shortcomings and permit the Petitioner to add/alter this filing and make further submissions as may be required by the Ld. Commission; and*

f. *Pass such further and other Orders, as the Ld. Commission may deem fit and proper, keeping in view the facts and circumstances of the case."*

Procedural History:

6. Motion hearing in the matter was held on 25th November' 2014 when it was observed that the following documents and details were not submitted with the petition:

(i) Detailed Project Report with estimated project cost.
(ii) Revised Detailed Project Report with revised project cost.
(iii) Board's resolution of Petitioner's company for original estimated project cost of Rs.6240.12 Cr. as filed in the petition.
(iv) Board's resolution of Petitioner's company for revised estimated project cost of Rs.8306.03 Cr as filed in the petition.
(v) Designed/Guaranteed performance parameters of Turbine and Boiler furnished by the supplier.
(vi) Letter of Assurance (LOA) from the lenders
(vii) Common facility/ Loan Agreement with State Bank of India being the facility agent.
(viii) Agreement with the lenders for additional loan amount against revised project cost
(ix) Copies of contracts/ orders issued to Vendors.
(x) Details of the project funding.
(xi) Unit-wise quarterly draw down schedule (Debt & Equity) for project funding.
(xii) Detailed calculations for determination of actual IDC amount.

7. Vide Commission's order dated 25th November, 2015, the petitioner was directed to file the above documents and details with the Commission by 8th December' 2014, to take up the petition for consideration.

8. By Affidavit dated 6th December' 2014, the petitioner submitted the details and documents as sought by the Commission. The petition was admitted on 19th December 2014 and the petitioner was directed to serve copies of the petition and the supplementary submissions on all Respondents in the matter. The respondents were also directed to file their response on the petition by 15th January' 2015.

9. On preliminary scrutiny of the subject petition, the information gaps and requirement of additional details/ data/ documents were communicated to the petitioner vide Commission's letter dated 27th December, 2014 seeking its response by 20th January' 2015.

10. Vide letter No. 05-01/38 dated 9th January' 2015, the respondent M.P.Power Management Company Ltd., Jabalpur sought four weeks' time extension for filing its response on the subject petition.

11. Vide letter dated 19th January, 2015, the petitioner sought time extension of 15 days for submission of response on the issues communicated by the Commission. By affidavit dated 4th February, 2015, the petitioner filed its response on each issue raised by the Commission.

12. On perusal of the reply filed by the petitioner, the Commission observed that some issues in the reply were still lacking clarity. Vide Commission's letter dated 28th February, 2015, the petitioner was asked to file a comprehensive reply to all such issues on declaration of unit(s) under commercial operation.

13. Vide Commission's order dated 06.05.2015, the Petition No.19 of 2014 was disposed of with the observation that "none of the Units was declared under commercial operation even after 6 months from the date of filing". However, the Petitioner was at liberty to approach the Commission with all the requisite details and documents as and when a generating unit is declared under commercial operation.

14. By affidavit dated 5th June, 2015, the petitioner filed the subject petition (Petition No.31 of 2015). The petitioner submitted that Unit-I of the Project was synchronized

with the grid on 19.03.2015 and has been commissioned (achieved full load) on 20.04.2015. Further, Unit I completed the trial run operation of 72 hours on May 15, 2015 and the commercial operation date (hereinafter "**CoD**") of the Unit I has been achieved at **00:00 Hrs on 20th May 2015**. In the aforesaid petition, the petitioner requested for revival of the petition No.19 0f 2014 and consideration of additional data/documents filed with that petition.

15. In the subject petition, the petitioner has also filed the response on the issues raised by the Commission vide its letter dated 28th February, 2015. Issue-wise response filed by the Petitioner is annexed as **Annexure-"A"** with this order.

16. The comments /objections offered by MPPMCL i.e, Respondent No. 1 and the Petitioner's response on Respondent's comments are annexed as **Annexure "B"** with this order**.**

Capital Cost of the project:

Petitioner's submission:

17. With regard to the capital cost of the project, in para 5.1 of the petition, the petitioner submitted the following:

The total capital cost claimed for tariff determination in the present Petition is ₹ 8,306.03 Crore, The petitioner submits the detailed break-up of the Project cost as tabulated below:

Particulars	***Cost (₹ Crore)***
Land & Site Development	*149.05*
Plant & Machinery	*4,970.29*
Buildings and Civil Works	*1,132.88*
Pre-Operative Expenses/Pre-Commissioning Expenses	*456.10*
Financing charges	*278.32*
Interest During Construction	*1165.77*
Contingencies	*153.63*
Margin Money	*-*
TOTAL PROJECT COST	***8,306.03***

It is further submitted that the capital cost is being funded by debt and equity in the ratio of 73.6:26.4 with a Debt of ₹6115.69 Crore and Equity of ₹2190.34 Crore, as per the details herein below:

Particulars	***Total (₹Crore)***	***Debt (₹Crore)***	***Equity (₹Crore)***
Estimated Capital Cost	***8,306.03***	***6,115.69***	***2,190.34***
Debt Equity Ratio		*73.60%*	*26.40%*

Provision under Regulation:

18. Regarding capital cost of the project, Regulation 17 of MPERC (Terms and Conditions for determination of Generation tariff) Regulations, 2012 provides that,

"Capital cost for a Project shall include:

(a) *the Expenditure Incurred or Projected to be incurred on original scope of work, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, - up to the Date of Commercial operation of the Project, as admitted by the Commission, after prudent check shall form the basis for determination of Tariff.*

(b) *capitalized initial spares subject to the ceiling norms as specified below:*

(i) *Coal-based/lignite-fired thermal generating stations - 2.5% of original Project Cost.*

(ii) *Hydro generating stations - 1.5% of original Project Cost.*

Provided that where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost under first proviso to 17.2, such norms shall apply to the exclusion of the norms specified herein.

(c) *additional capital expenditure determined under Regulation 20.*

Subject to prudent check, the capital cost admitted by the Commission shall form the basis for determination of Tariff:

Provided that, prudent check of capital cost may be carried out based on the benchmark norms specified by the Central Commission from time to time:

Provided further that in cases where benchmark norms have not been specified by the Central Commission, prudent check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of Tariff :

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COMMISSION’S ANALYSIS:

19. On preliminary scrutiny of the petition No.19 of 2014, the Commission observed that there were several details / documents which are essential for scrutiny of the capital cost. Vide daily order dated 25th November, 2014, the petitioner was asked to file all such details by 8th December, 2014.

20. By affidavit dated 6th December, 2014, the petitioner submitted that the following:

i. *Detailed project report of 2x600 MW thermal power project was prepared in May, 2009 with estimated project cost of ₹ 6240 Crores financed in debt-equity ratio of 75:25 i.e. loan of ₹4680 Crores and equity of ₹1560 Crores.*

ii. *Investment approval of the project was accorded by its Board on 21.10.2009 at initial estimated project cost of ₹6240 crore with debt-equity ratio of 75:25.*

iii. *The total Project Cost has been reassessed and re-appraised by the Project’s financial advisor, SBI Capital Markets Limited and the revised total Project cost of ₹8000 Crores with the funding of debt of ₹5912 Crores and equity of ₹2088 Crores is captured in the ‘Project Information Memorandum’ prepared by SBI CAPS*

iv. *Vide Board Resolution dated 4th August, 2013, the revised project cost estimate of ₹8000 Crores has been approved by the Board of the petitioner company.*

v. *The total Project Cost is now estimated at ₹8306.03 Crore. Out of ₹8306.03 Crore, ₹ 8000 Crore has been approved by the Board of Directors of the Petitioner Company vide Board Resolution dated August 4, 2013.*

vi. *For the purpose of provisional tariff, the Petitioner has reduced 'Margin money for working capital' of ₹ 270 Crore from the capital cost of ₹ 8000 Crore, and included ₹576.03 Crore towards customs duty & excise duty in respect of which the Petitioner has partly paid in cash through equity of ₹ 75.79 Crore and the balance in the form of Bank Guarantees pending Mega Power Status, provisionally approved by Government of India.*

vii. *The petitioner has filed the copies of the Board Resolution dated June 30, 2014 approving ₹ 210 Crores as Bank Guarantee facilities and Board Resolution dated August 4, 2014 approving ₹8000 Crore as the appraised total Project Cost and ₹360 Crore as Bank Guarantee facilities*

viii. *The original project cost and revised project after taking into account the additional project cost along with funding plan approved by the Board of Director's of the Company are as given below:*

₹ Crores

Particular	*Approved by the Board dated 21st Oct. 2009*	*Approved by the Board dated 4th August, 2014*
	Original project cost	***Revised project cost***
Project Equity	*1560*	*2088*
Loan Component	*4680*	*5912*
Project Cost	***6240***	***8000***

21. The component wise break-up of the project cost originally estimated in the Detailed Project Report vis-a-vis revised capital cost as filed by the petitioner is given below:

Project Cost components Breakup: **(₹ in Crores)**

Particulars (Rs Crore)	Original	Revised	Inc./(Dec)
Land and Site Development	101.76	149.05	47.29
Total EPC Cost	4,372.10	4,610.47	238.37
Total Non-EPC Cost	561.81	916.66	354.85
Pre-operative and Misc. Exp.	179	456.1	277.1
Financing charges	65.56	278.32	212.76
Interest During Construction	659.48	1165.77	506.30
Contingencies #	201.43	153.63	-47.8

Margin Money *	98.99	270	171.02
TOTAL PROJECT COST	**6,240.12**	**8,000.00**	**1,759.88**
Separate BG Facility Requirement			
BG Facility Requirement for CD and ED Payments *		576.03	
Additional BG Facility required for PPA, FSA etc		250	

#- Contingency provision of ₹ 201.43 Crore has been absorbed in EPC cost and additional provision for ₹ 153.63 Crore has been made in the Revised Project Cost.

US$/INR exchange rate of 60.00 has been assumed for estimating the value of the BTG contract.

* *The margin money of Rs. 270 Crore assessed by MBPMPL and appraised by Lenders as Project Cost has not been claimed in the Regulatory Capital Cost for the subject Project in the current petition.*

Note: *The BG facility towards CD and ED payments for Project will be released on receiving the Mega Power Project status.*

22. In the above project cost estimate, the petitioner has considered ₹ 576.03 Crores against Bank Guarantee Facility Requirement for Custom and Excise Duty Payments which is refundable on issuance of Mega power status of the project.

23. With regard to the common facilities related to phase-II of the project, vide Commission's letter dated 27th December, 2014, the petitioner was asked to file the details of common facilities along with the apportionment of cost between the units of Phase I and II.

24. By affidavit dated 4th February, 2015, the petitioner submitted that Phase II is still in the conceptual stage and as such, at the present stage, there are no facilities specifically created for Phase-II and all facilities form integral part of the Project cost of Phase-I. It was further submitted that certain facilities such as Land, Barrage, Ash Dyke and Railway Siding may be common with Phase-II and will be put to use with requisite augmentation as and when Phase-II is planned.

25. The scheduled commercial operation date of Unit No.1 of the project was November, 2014 in terms of the clause 4.1.5 of the PPA dated 5th January, 2011 executed between the parties. Further, clause 4.1.6 of the PPA stated that the parties may mutually agree to revise the scheduled COD for commissioning of any

unit or the power station and such revised scheduled COD shall thereafter be the scheduled COD of the unit/project.

26. Vide Commission's letter dated 27th December, 2014, the petitioner was asked to file the reasons for delay in achieving COD of Unit No. 1. The petitioner was also asked to inform that whether any revised scheduled COD has been agreed to by the respondent M.P. Power Management Company Ltd.

27. By affidavit dated 4th February, 2015, the petitioner submitted that as per the Power Purchase Agreement signed with the Respondents, the Schedule COD of Unit–1 of the Petitioner's Project was 30.11.2014 (i.e., within 60 months of the execution of the Implementation Agreement dated 01.12.2009). However, there has been a marginal delay of about 3/4 months in the commissioning of Unit-I of the Project. The Petitioner further submitted that Unit-I of the Project is expected to commission by end of March, 2015. The petitioner has requested Respondent No.1, to approve the extension of SCOD of Unit-I of the Project.

28. The petitioner also submitted that despite its' best efforts, the petitioner was unable to commission the Project on SCOD owing to various hurdles faced by it during the construction phase of the Project being, inter alia, delay in grant of Stage-II forest clearance, various challenges in acquisition of additional land for Barrage, disturbances/unrest at Project site by motivated elements, unprecedented rains during monsoon, delay on account of filing of unwarranted Public Interest Litigations by meddlesome interlopers for personal gains, etc. The petitioner also submitted the copy of some documents in support of its aforesaid contention.

29. The petitioner further submitted that the reasons for marginal delay in Project implementation were beyond the reasonable control of and not attributable to the petitioner. The petitioner also submitted that the detailed evaluation of the grounds of delay was undertaken and duly approved by the lenders of the Petitioner's Project as detailed in the Project Information Memorandum

30. By affidavit dated 5th June, 2015, the petitioner further mentioned that the request for extension of SCOD of Unit I up to 30th April, 2015 made by the Petitioner has been approved by Respondent No.1. Further, vide its communication dated 16.05.2015, the Petitioner had requested Respondent No.1 for approval of extension of SCOD of Unit-I up to 19.05.2015.

31. On perusal of the aforesaid details and documents on record, the Commission observed that there is a marginal delay of about 20 days in COD of Unit No. 1 from the date extended by Respondent No. 1in terms of PPA, as given below:

- Scheduled COD of the Unit 1 as per PPA - Nov. 2014,
- MPPMCL has extended COD up to - **30th April, 2015**
- Actual COD of Unit No. 1 - 20th May, 2015,

32. Vide letter dated 28th February, 2015, the petitioner was also asked to file the details of liquidated damages (LD) recovered / to be recovered from various contractors / vendors in different packages against delay in project.

33. By affidavit dated 5th June, 2015, the petitioner submitted that the liquidated damages recovered / to be recovered in different packages would be known at the time of contract settlement once the project is commissioned and cut-off date is achieved.

34. In view of the above, the Commission has observed that has extended the scheduled COD of the Unit No. 1 of the project has been extended by the respondent M.P. Power Management Company Limited up to 30th April, 2015. However, the petitioner has again requested MPPMCL for approval of extension of SCOD of Unit-I for further 19 days i.e, up to 19.05.2015 but the concurrence of Respondent is awaited. Therefore, the issue regarding delay in COD of the project shall be examined by the Commission while determining the final tariff of the project.

35. With regard to the cost overrun of the project, vide letter dated 29th December, 2014, the petitioner was asked to file the reasons of cost overrun in different components of the capital cost.

36. By affidavit dated 4th February, 2015, the petitioner submitted the head-wise reasons and its justification for revision of project cost. The main reasons for cost overrun as submitted by the petitioner are as given below:

A. Increase in Cost of Land and Rehabilitation and Resettlement:

i. Net increase of Rs. 6.35 Crore due to increase in anticipated cost of land acquired for the main plant and compensation for right of way for raw water *pipeline as against the initially estimated cost and cost of land acquired for ash dyke and barrage outside the main plant area.*

ii. *Additional cost impact of Rs. 23.59 Crore is attributed requirement of additional land estimated approximately 103 Acres outside the main plant premises for the Railway Siding in terms of the revised Engineering Scale Plan approved by the South East Central Railway.*

iii. *Additional cost impact of Rs.19.85 Crore is estimated in revised Project cost in terms of the provisions of Madhya Pradesh Rehabilitation and Resettlement Plan, 2002 and, National Rehabilitation and Resettlement Plan, 2007 for the people affected by acquisition of additional land for Railway Siding, barrage and ash pipeline.*

B. Change in Scope of Work:

(i) ***Railway Siding***

Based on preliminary engineering carried out at the time of submitting DPR to Railway Authorities for in-principle approval, it had envisaged track length of approx. 14 Km with an estimated cost of Rs. 35 Crore for civil, overhead electrification works and signaling and telecommunication system based on railway schedule rates notified in 2010. It is further submitted that the Engineering Scale Plan as initially submitted to Railways had to be revised in consultation with Railways on account of

(i) Shifting of exchange yard from Jaithari station to inside the plant area; and

(ii) Reduction in formation level work in plant area to enhance operation ease.

On account of the afore-stated reasons, the Railway Siding cost was re-estimated at Rs. 118.75 Crore i.e. an increase of Rs. 83.75 Crore. The said increase is on account of following reasons:

(ii) ***Ash Dyke***

Initially the ash dyke was proposed to be built inside the plant area (near reservoir area). However, due to excessive quantum of rock encountered in the reservoir area during excavation, further excavation was stopped and it was decided to utilize the already excavated area with limited ash storage capacity by building bund in low ground area along with proposing the construction of another temporary ash dyke in the coal handling plant area. However, these together would cater to disposal of ash corresponding to approximately 15 months only.

To cater to balance requirement of ash storage for the plant, the Petitioner proposed the construction of another dyke of approximate 3.3 MCM capacity outside the Main Plant at a distance of approx. 3 km from the Project site. The additional cost impact of Rs 96.88 Crore has been estimated under this head on account of construction of the above mentioned dykes including the HDPE lining of ash dykes (not envisaged earlier).

(iii) ***Water Reservoir:***

I*t had planned to build a reservoir having water storage capacity of 2.4 MCM corresponding to about one month storage only. However, subsequently, to avoid any hydrological risk and adverse impact on Project due to poor water availability in River Sone during the lean season, it was decided to enhance the reservoir capacity. The additional cost impact of Rs. 31.90 Crore has been estimated on account of enhancing the capacity including the cost of HDPE lining to avoid water seepages which was not envisaged earlier.*

(iii) ***Township***

The Petitioner submits that the contract of Township, at the time of FC, included construction of accommodation facility for 320 O&M personnel and other facilities such as school, hospital and guest house etc. However, during Project implementation based on detailed engineering and cost analysis, the awarded cost was sufficient for accommodation facility of 225 number of O&M Personnel only.

Additional cost impact of approximately Rs. 25 Crores has been estimated for Township on account of increase in scope of works including additional Civil and Plumbing works for Residential quarters (increase from 225 to 280 personnel) considering O&M of the Project with Chinese Equipment, additional electrification works, School facility up to Class 8th Standard and Hospital Facility with related infrastructure, Shopping Complex, Community Centre, etc.

(iv) ***Site grading and nala diversion***

The scope of work initially envisaged in relation to site leveling works for main plant area included site grading and diversion of two nalas of approx. length of 5-6 Km through the boundary wall, removal of a small hill in the ash dyke area and filling of the original course of the nalas after diversion using excavated earth. However, during actual execution an additional impact of Rs. 34.16 Crore has been estimated on account of increased excavation work in rocks, constructing longer leads for disposal of excavated earth, additional construction works in south nala and laying of hume pipes along the boundary wall and concrete lining of both the Nalas which were not foreseen earlier.

(v) ***Barrage***

The additional cost impact of Rs. 23.26 Crore has been estimated for Barrage works on account of following reasons:

(a) *Cost impact of Rs 10.77 Crore – Owing to change in the standard Project flood level during detailed engineering, design of barrage underwent significant changes resulting in increase in number and width of radial gates which resulted in increase in barrage concreting works.*

(b) *Cost impact of Rs 12.50 Crore on account of Fish Pass arrangement which included supplies and civil works. The said Fish Pass was not envisaged at the time of FC and was constructed pursuant to direction of the National Green Tribunal in a Public Interest Litigation.*

(vi) ***Construction Power and Start up Power Infrastructure***

The Petitioner submits that at the time of FC, it had planned to source the construction power/ start-up power from a nearby sub-station. However, during detailed engineering and on enquiry from MP State Electricity Board it was understood that it would not be feasible to get the required connection from nearby substation for construction power. As a result thereof, the Petitioner had to set up infrastructure worth Rs. 7 Crore for sourcing construction power through 33 KV line.

The Petitioner submits that the 33 KV line capacity was not sufficient for start-up power requirement and as such, the Petitioner had to set up additional infrastructure worth Rs. 28.00 Crore to source power for start-up power requirement through 132 KV line from Chachai substation (approx. 25 Km away from the Project site). Net additional impact of Rs 21 Crore has been estimated by the Petitioner under this head.

(vii) ***Piling Works***

The Petitioner submits that initially soil investigation in the plant area could not be carried out owing to the challenges faced during land acquisition process and agitations by the locals. However, the Petitioner had gathered initial soil data from a nearby power project of MP Electricity Board of Chachai. Basis this initial soil data, it was deduced that no major piling would be required. However, subsequently Geo-Marine carried out a Geotechnical Investigation and submitted its' final report in December, 2010 i.e. after the award of EPC Contract in November, 2010. This soil report recommended piling in Chimney and Boiler Turbine Generator areas. Lanco Infratech Limited, the EPC contractor carried out a detailed soil investigation and piling was recommended for all heavily loaded structures including BTG and Chimney areas. Additional Cost Impact of Rs 99.18 Crore has been estimated for Piling works including the impact of Bulk Material Price Variation.

C. Adverse foreign exchange rate movement

The contract for supply of Boiler, Turbine and Generator has been awarded to Lanco Infratech Limited by way of International Competitive Bidding at US$360 Mn (fixed price contract). Based on the same, the estimated cost of the contract was Rs. 1,775.41 Crore at an average exchange rate of Rs. 49.31 per dollar. The appraised budget under 'Boiler, Turbine and Generator' head at the time of FC was Rs 1,887 Crore including provision of 30% expected liability for Custom duty on conservative basis. As on 30th November, 2013 (i.e. cut-off date for assessing the Project cost revision), the payments of US$211.99 Mn made by the Petitioner were financed through Rupee Term Loan facility equivalent to US$124.44 Mn and Buyer's Credit facility of US$87.55 Mn. On the RTL facility drawn, the aggregate FERV variation was Rs. 7.45 Crore only over a period of about three years. The INR had initially appreciated to average rate of Rs. 44.72 per US$ at the time of advance payment but further depreciated to average rate of Rs. 57.37 per US$. As on cut-off date, the open FX position was US$ 87.55 Mn (BC) and the balance payment of US$ 148.01 Mn aggregating to US$ 235.56 Mn. At prevailing US$/INR exchange rate of Rs. 60.00, the estimated notional Forex Loss was estimated to be Rs 251.82 Crore for the open FX position. The aggregate FX Loss on BTG package was estimated to be Rs. 259.27 Crores. However, in light of the budget approved under the same head, the additional cost impact has been estimated at Rs 147.68 Cr.

D. Pre-Operative Expenses

The total Pre-operative expenditure for the Project had been estimated at Rs. 179.00 Crore at the time of FC which was further bifurcated into Rs. 119.00 Crore towards various consultancy services including project management services and Rs. 60.00 Crore towards pre-commissioning expenses.

Expenses incurred towards consultancy services:

The project management expenses include establishment cost, administrative and general expenses, repair and maintenance expenses, insurance, corporate communication expenses etc., during the construction period. Additional cost impact of Rs 277.10 Crore over the appraised project management expenses has been estimated on account of following reasons:

- *Various consultancy services availed (not restricted to engineering consultancies but includes legal, financial, commercial, tariff related consultancy and miscellaneous consultancy, etc.);*
- *Establishment costs of Project construction team, back office support team from head office, gradual ramp up of O&M team to take over the Project as on COD, shared resources employed with other group companies, etc.;*

- *Administrative and general expenses including rent, travel, horticulture, employee health and safety expenses, office expenses, repair and maintenance expenses, insurance expenses and other miscellaneous expenses.*

Expenses incurred towards pre-commissioning expenses:

Initially the cost under this head was estimated at Rs. 60.00 Crore. However, the revised estimate of expenses under this head is Rs. 106.30 Crore. This increase is owing to (i) escalation in power and water charges to the extent of Rs. 15.64 Crore. The increase is mainly attributable to expense incurred towards temporary HT connection for start-up power and (ii) escalation in cost of start-up fuel after setting off revenue realized from sale of in-firm power to the extent of Rs. 30.66 Crore. The current revised estimate assumes coal at cost as per the FSA signed compared to the cost and GCV assumed at FC.

E. Increase in interest rate and related financing charges:

a) Interest during Construction (IDC)

IDC had been estimated at Rs. 659.48 Crore at the time of FC. Revised estimate for IDC is Rs. 1,165.77 Crore and the difference of Rs. 506.30 Crore in cost is primarily on account of the following reasons:

- *Time over-run in commissioning of Project by 10 months from envisaged schedule at the time of FC;*

- *Increase in actual interest rate (current prevailing at 14.50% p.a. for original term loan of Rs. 4,680.00 Crore and 14.50% p.a. proposed for debt funding of cost overrun) during construction period compared to interest rate assumed at FC (11.75% p.a.).*

(b) Financing Charges:

The petitioner submitted that as per the revised estimate, there is an increase of Rs. 212.76 Crore mainly on account of the following reasons:

- *As per the initial estimates, underwriting, upfront and processing fee on loan was considered @1.4%, whereas in the revised estimate, syndication fee on sanctioned debt amount was also considered leading to an increase of Rs. 21.38 Crore;*

- *The revised cost estimate also includes amount of Rs. 29.06 Crore on account of financing cost (1.75%) of additional debt of Rs. 1,232 Crore and working capital loan of Rs. 750 Crore @1.00%;*

- *Additional cost (@1.5%) has been incurred / estimated in the form of Indian Letter of Credit / Foreign Letter of credit;*

- *Buyer's credit financing charges*

- *Bank Guarantee charges @2% towards BG requirement towards Custom and Excise Duty payments;*

- *The ECB financing charges and its hedging cost for Exchange rate variation for facility extended by India Infrastructure Finance Company (UK) has been considered in the total financing charges.*

37. On perusal of the above, the Commission has observed that the figures filed in the petition are provisional and based on the estimations/projections for the project. Therefore, the detailed scrutiny of cost overrun shall be carried out on availability of the actual figures based on the Audited Financial Accounts of the petitioner while determination of final tariff of this power project.

38. By affidavit dated 6th June, 2015, the petitioner filed the Chartered Accountant's (CA) certificate dated 27.05.2015 certifying the actual capital expenditure of **₹ 7048.69 Crores** for both units as on 19th May, 2015. The cost break up of actual expenditure as on 19th May, 2015 as certified by the CA is as given below:

Amount in ₹ Crores

Particulars	**Actual expenditure as on 19/05/2015 certified by the CA**
Land	
Free hold land	77.87
Lease hold land	3.45
Plant and Machinery	
BTG and BOP	3859.44
Barrage	150.20
Railway Siding	124.91
Building and Civil works	651.20
Ash Dyke	104.47
Project Management Expenditure	391.47
Start up fuel Expenses (Net off infirm power)	69.61
Interest during construction	1381.70
Financing Charges	234.37
Total expenditure	**7048.69**

The Auditor has mentioned that the start-up fuel expenses (net- off infirm power includes ₹ 3.87 Crores (net off power drawl) realized towards sale of infirm power up to 19th May, 2015.

39. The petitioner has also filed the unit- wise apportionment of the total expenditure duly certified by CA as per provisions under regulation 8.2 and 8.3 of MPERC (Terms and Conditions for determination of Generation tariff) Regulations, 2012. The details of the unit wise break–up of the above capital expenditure of 2x600 MW Petitioner's Thermal power plant as certified by the CA is as given below:

Amount in ₹ Crores

Particulars	Unit 1	Unit 2	Total Actual expenditure as on 19/05/2015
Land			
Free hold land	38.94	38.94	77.87
Lease hold land	1.72	1.73	3.45
Plant and Machinery			
BTG and BOP	1929.72	1929.72	3859.44
Barrage	75.10	75.10	150.20
Railway Siding	62.46	62.45	124.91
Building and Civil works	325.60	325.60	651.20
Ash Dyke	52.24	52.23	104.47
Project Management Expenditure	195.73	195.73	391.47
Start up fuel Expenses (Net off infirm power)	69.61	-	69.61
Interest during construction	690.85	690.85	1381.70
Financing Charges	117.18	117.18	234.37
Total expenditure	**3559.15**	**3489.54**	**7048.69**

40. On perusal of the aforesaid certified actual capital expenditure filed by the petitioner, the Commission observed that the total capital cost of ₹ 8306.03 Crores initially claimed by the petitioner included the Excise Duty / Customs Duty of ₹ 576.03 Crores in form of Bank Guarantee, which will be released on receiving Mega Power Project status. Vide Commission's letter dated 10th July, 2015, the petitioner was asked to file the break-up/status of above mentioned expenses in this regard.

41. By affidavit dated 15th July, 2015, the petitioner filed the CA certificate in continuation to the aforesaid certificate which stated that the amount of ₹ 28.75

Crores actually paid for Custom & Excise duty is included under the head of BTG & BOP in certificate dated 27th May, 2015. The petitioner also filed the updated summary of UI transactions as on COD of the unit.

42. In view of the above, the Commission has noted that the petitioner is already granted the provisional approval of Mega power status and final approval is under process. Therefore, the amount of ₹ 28.75 Crores paid for Custom & Excise duty which is refundable on final approval of Mega power status is not allowed in this order at this stage.

Infirm Power:

43. With regard to sale of infirm power, Regulation 19 of MPERC (Terms and Conditions for determination of Generation tariff) Regulations, 2012 provides as under:

"Infirm Power shall be accounted as Unscheduled Interchange (UI) and paid for from the regional / State UI pool account at the applicable frequency-linked UI rate:

> *Provided that any revenue earned by the Generating Company from sale of Infirm Power after accounting for the fuel expenses shall be applied for reduction in capital cost."*

44. The petitioner submitted that the Unit No. 1 of its Power Project was synchronized with the grid on 19.03.2015 and achieved COD on 20th May, 2015. With the subject petition, the petitioner filed the date-wise statement of infirm power drawl/injection and revenue payable/receivable for infirm power. The petitioner also filed the expenses/details of start-up fuel certified by the CA as supporting document in this regard.

45. On perusal of the summary of UI transaction and CA certificate dated 1st June, 2015, the Commission observed the following:

   i. The fuel expenses net of with the amount of sale of infirm power was deducted only to the extent of realization revenue of ₹ 3.87 Crores whereas as per the summary of UI transaction filed with the petition, the net receivables were about ₹ 17.23 Crores up to 17th May, 2015.

ii. The summary of UI transaction filed with the petition was only up to 17th May, 2015 whereas, the Unit No. 1 was declared under commercial operation on 20th May, 2015.

46. Therefore, vide letter dated 10th July, 2015, the petitioner was asked to rectify the above mentioned discrepancies in light of the Regulations. The petitioner was also asked to file the updated summary of UI transaction as on COD of the unit.

47. By affidavit dated 15th July, 2015, the petitioner filed the following updated summary of UI transaction till COD of the Unit No. 1:

Infirm power details:

Particular	Unit	
Energy drawl till COD	MU's	11.862
Energy injection till COD	MU's	130.516
Net amount payable	₹ Crores	2.74423
Net amount receivable	₹ Crores	17.2244
Net revenue from infirm power	**₹ Crores**	**14.4802**

48. In view of the above, the Commission has considered the net revenue from sale of infirm power (after accounting the amount payable against the energy drawl) of ₹ 14.48 Crores as on COD of the Unit No. 1 and same has been considered for reduction of start-up fuel expenses. The details of the start-up fuel expenses considered in this order are as given below:

Details of fuel expenditure for generation of infirm power:

Month	**Fuel Oil**	**Quantity consumed**	**Landed price (₹/KL or MT)**	**Cost in ₹ Crores**
March, 15	Coal (MT)	-	-	-
	LDO (KL)	2375.00	47581.46	11.30
	HFO (KL)	4608.23	37740.33	17.39
April, 15	Coal (MT	21721.00	1921.94	4.17
	LDO (KL)	1125.67	47581.46	5.36
	HFO (KL)	4595.21	37740.33	17.34
May, 15	Coal (MT	70269.00	1921.94	13.51
	LDO (KL)	405.17	47581.46	1.93
	HFO (KL)	656.22	37740.33	2.48
Total cost of start-up fuel				**73.48**
Less – revenue from sale of infirm power				**14.48**
Net cost of start-up fuel (net off revenue from infirm power)				**59.00**

Interest during construction (IDC):

49. The Commission has observed that the IDC and financing charges of ₹ 1399 Crores have now increased to ₹1871 Crores as on 31st July, 2014. The COD of Unit No. 2 is yet to be achieved.

50. The petitioner submitted that the impact of cost and time overrun if any, on the Interest and Finance Charges can be ascertained only after COD of both the Units. The petitioner mentioned that the details shall be submitted thereafter. The issues related to charging of LD on different packages would also be arrived at only after COD of both the units.

51. All the details filed by the petitioner are provisional / estimated and have not attained finality. Therefore, the detailed scrutiny of IDC and establishment charges shall be carried out while determining the final tariff order of the project. The Commission shall examine the issues related to IDC on availability of the actual phasing of expenditure and normative debt -equity ratio during construction period of the project.

Capital Cost cconsidered in this order:

52. In view of the above status, the Commission has provisionally considered the following capital cost of ₹ **3519.79** Crores for Unit No. 1 as on COD based on the CA certificate filed by the petitioner after accounting for the custom and excise duty actually paid and net revenue generated from sale of infirm power:

Unit wise actual Capital expenditure as on 19.05.2015 for Unit 1&2: ₹ Crores

Particulars	**Unit 1**	**Unit 2**	**Total Actual expenditure as on 19/05/2015**
Cost of Land			
Free hold land	38.94	38.94	77.87
Lease hold land	1.72	1.73	3.45
Plant and Machinery including C & E duty			
BTG and BOP	1929.72	1929.72	3859.44
Barrage	75.1	75.1	150.2
Railway Siding	62.46	62.45	124.91
Building and Civil works	325.6	325.6	651.2
Ash Dyke	52.24	52.23	104.47
Project Management Expenditure	195.73	195.73	391.47
Start up fuel Expenses (Net off infirm power)	**59.00**	**-**	**59.00**
Interest during construction (IDC)	690.85	690.85	1381.7
Financing Charges	117.18	117.18	234.37
Total expenditure	**3548.54**	**3489.53**	**7038.08**
Less Custom & Excise duty paid in cash	28.75	-	28.75
Net actual capital expenditure	**3519.79**	**3489.53**	**7009.33**

53. The breakup of the aforesaid expenditure has indicated an expenditure of ₹ **3519.79 Crores** (including ₹ **59.00 Crores** of start-up fuel net off infirm power) on Unit No. 1. The expenses towards common facilities between Unit 1&2 have been apportioned by the petitioner in accordance with the provisions under MPERC (Terms and Conditions for determination of generation tariff), Regulations' 2012.

Debt – Equity Ratio for Funding of Project Cost:

Provision under Regulation:

54. Regarding Debt – Equity ratio and funding of the project, Regulation 21 of MPERC (Terms and Conditions for determination of Generation tariff) Regulations, 2012 provides that;

"In case of the generating station declared under commercial operation prior to 1.4.2013, debt-equity ratio allowed by the Commission for determination of Tariff for the period ending 31.3.2013 shall be considered. For the purpose of determination of Tariff of new generating station Commissioned or capacity expanded on or after 01.04.2013, debt-equity ratio as on the Date of Commercial operation shall be 70:30. The debt-equity amount arrived in accordance with this clause shall be used for calculation of interest on loan, return on equity and foreign exchange rate variation.

Where equity actually employed is in excess of 30%, the amount of equity for the purpose of Tariff shall be limited to 30% and the balance amount shall be considered as loan. The interest rate applicable on the equity in excess of 30% treated as loan has been specified in Regulation 23. The normative repayment shall also be considered on the equity in excess of 30% treated as loan. Where actual equity employed is less than 30%, the actual equity shall be considered."

55. As per the Auditor's certificate dated 27th May, 2015 and break-up of capital expenditure filed by the petitioner, the actual capital expenditure as on 19th May, 2015 for Unit No.1&2 is ₹ **7048.69 Crores.** The Auditor has mentioned that the aforesaid capital cost has been funded through the loan and equity of ₹ **5262.22 Crores** and ₹ **2021.42 Crores** respectively with debt – equity ratio of **72.25 / 27.75.** The balance fund of ₹ **234.95.Crore** as on 19th May' 2015 is closing cash & bank balances as shown in the Auditor's certificate.

56. With regard to the funding of expenditure pertaining to Unit No. 1, the Commission has considered the same debt – equity ratio (72.25 / 27.75) as that of the total actual capital expenditure funded as on COD of Unit No. 1.

57. Based on the above, the funding of the actual capital expenditure certified by the auditor and debt : equity ratio as on COD of the M.B. Power TPP Unit No. 1 is considered in this order as given below:

Funding as on COD of Unit No. 1:

Sr. No.	Particular	Unit	Amount in ₹ Crores
1	Gross Fixed Assets	₹ Crores	3519.79
2	Opening Loan	₹ Crores	2542.95
3	Opening Equity	₹ Crores	976.84
4	Normative Equity	₹ Crores	976.84
5	Debt : equity	ratio	72.25 / 27.75

Annual Capacity (fixed) Charges:

58. The tariff for supply of electricity from a thermal power generating station shall comprise of capacity charge and energy charge to be derived in the manner specified in Regulations 40 and 41 of "Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2012. {RG-26 (II) of 2012}." The annual Capacity (fixed) Charges consist of:

(a) Return on Equity;
(b) Interest and Financing Charges on Loan Capital;
(c) Depreciation;
(d) Operation and Maintenance Expenses;
(e) Interest Charges on Working Capital;
(f) Cost of Secondary Fuel Oil;
(g) Lease/Hire Purchase Charges;
(h) Special allowance in lieu of R&M or separate compensation allowance, wherever applicable:

a. Return on Equity:

59. Regulation 22 of the MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012 provides as under;

"Return on equity shall be computed in rupee terms, on the paid up equity capital determined in accordance with Regulation 21.

Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per Regulation 22.3 of this Regulation:

Provided that in case of Projects commissioned on or after 1st April, 2013, an additional return of 0.5% shall be allowed if such Projects are completed within the timeline specified in ***Appendix-I*** *:*

Provided further that the additional return of 0.5% shall not be admissible if the Project is not completed within the timeline specified above for reasons whatsoever.

The rate of return on equity shall be computed by grossing up the base rate with the normal tax rate for the Year 2012-13 applicable to the Generating Company:

Provided that return on equity with respect to the actual tax rate applicable to the Generating Company, in line with the provisions of the relevant Finance Acts of the respective Year during the Tariff period shall be trued up separately.

Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)
Where t is the applicable tax rate in accordance with Regulation 22.3 --------"

60. The opening equity of **₹ 976.84 Crores** as on 19th May, 2015 for Unit No. 1 based on the Auditor's certificate (with respect to actual capital expenditure) is considered in this order. The equity amount actually incurred is less than the 30% of the capital cost. Therefore, the actual equity of **₹ 976.84 Crores** is considered as normative equity for return on equity in this order.

61. The petitioner claimed the rate of return by grossing up the Base rate of Return with corporate tax rate. Vide letter dated 27th December, 2014, the petitioner was asked to explain the reason for considering Corporate Tax for return on equity with supporting documents in light of provisions under MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012.

62. By affidavit dated 4th February, 2015, the petitioner submitted that subsequent to commercial operation of the unit(s), the petitioner would earn Return in Equity and as such would be liable to pay income tax at the normal tax rates. Accordingly,

corporate tax rate has been used by the petitioner to gross up with the base rate for calculating the ROE of the project.

63. In view of the above, the Commission has considered the grossing up the base rate of return with MAT instead of corporate tax in this order. Accordingly, the rate of return after grossing up with the MAT is worked out is **19.61**% and same is applied for calculation of return on equity in this order. Based on the above, the Return on Equity is determined as given below:

Return on equity:

Sr. No.	Particular	Unit	FY2015-16
1	Opening Normative Equity	₹ Crores	976.84
2	Equity addition during the year	₹ Crores	0.00
3	Closing Normative equity	₹ Crores	976.84
4	Average Normative equity	₹ Crores	976.84
5	Base rate of Return on Equity	%	15.50
6	Minimum Alternate Tax considered	%	20.96
7	Rate of pre-tax return on equity	%	19.61
8	**Annual Return on equity**	**₹ Crores**	**191.56**

b. Interest and finance Charges:

64. Regulation 23 of the MPERC (Terms and Conditions for determination of Generation Tariff)Regulations, 2012 provides as under;

"*The loans arrived at in the manner indicated in Regulation 21 shall be considered as gross normative loan for calculation of interest on loan.*

The normative loan outstanding as on 1.4.2013 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2013 from the gross normative loan.

The repayment for the Year of the Tariff period 2013-16 shall be deemed to be equal to the depreciation allowed for that Year.

Notwithstanding any moratorium period availed by the Generating Company, the repayment of loan shall be considered from the first Year of commercial operation of the Project and shall be equal to the annual depreciation allowed.

The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each Year applicable to the Project:

Provided that if there is no actual loan for a particular Year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station does not have actual loan, then the weighted average rate of interest of the Generating Company as a whole shall be considered.

The interest on loan shall be calculated on the normative average loan of the Year by applying the weighted average rate of interest.

The Generating Company shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the Beneficiaries and the net savings shall be shared between the Beneficiaries and the Generating Company, in the ratio of 2:1. ---------"

65. With regard to financing of the project, the petitioner in petition No. 19 of 2014 submitted the following:

> *"The Project has been financed by a consortium of banks and financial institutions. The Lender Consortium comprises of State Bank of India as the Lead Bank and Power Finance Corporation Ltd., Rural Electrification Corporation, PTC India Financial Services Ltd., Axis Bank, L&T Infra, Life Insurance Corporation of India, Punjab National Bank, State Bank of Patiala, State Bank of Bikaner and Jaipur and Federal Bank as Consortium partners. The Petitioner has signed the Common Loan Agreement on 16.11.2010 for an amount of Rs. 4,680 Crore. Further, additional loan of Rs. 1232 Crore has been sanctioned by State Bank of India and Axis Bank on 25.07.2014 and 17.06.2014 respectively."*

66. The loan amount of **₹ 2542.95 Crores** for Unit No. 1 (actually incurred as on 19th May, 2015 is worked out based on the Auditor's certificate dated 27th May, 2015), is considered as opening loan balance for Unit No. 1 as on its COD. The aforesaid opening loan amount considered in this order is more than 70% of the opening GFA.

67. With regard to the Weighted average rate of interest on loan, vide letter dated 27th December, 2014, the petitioner was asked to file the supporting documents from each lender for applicable weighted average rate of interest claimed in the petition.

68. By affidavit dated 4th February, 2015, the petitioner submitted that the weighted average rate of interest has been calculated on the actual disbursement and rate of interest as on the date of disbursement. The petitioner further submitted that as per the common loan agreement, dated 16th November, 2010, the interest rate is decided by each lender on each disbursement date separately. The petitioner also filed Banker's Certificate towards the year-wise interest incurred in the project along with bank-wise outstanding loan amount.

69. On perusal of the aforesaid details filed by the petitioner, the Commission observed that the weighted average annual rate of interest is not mentioned in any of the interest certificates issued by the banks. Vide letter dated 28th February, 2015, the petitioner was asked to file year wise weighted average rate of interest for each lender based on the certificates issued by the banker's.

70. By affidavit dated 1st July, 2015, the petitioner submitted the detailed calculation for working out the weighted average rate of interest till FY 2014-15 as given below:

Financial Year	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
Wt. avg. rate of interest	13.89%	13.72%	12.45%	13.95%

71. Accordingly, the weighted average rate of interest on loan @ **13.95 %** for FY 2014-15 as filed by the petitioner is provisionally considered for calculation of interest amount for FY2015-16 in this order. Repayment equivalent to depreciation for the period is considered as per the provision under Tariff Regulations, 2012. Based on the above, the interest and finance charges on loan is determined as given below:

Interest charges on loan:

Sr. No.	Particular	Unit	FY2015-16
1	Opening Loan	₹ Crores	2542.95
2	Loan addition during the year	₹ Crores	0.00
3	Repayment during the year considered	₹ Crores	147.55
4	Closing Loan	₹ Crores	2395.40
5	Average Loan	₹ Crores	**2469.17**
6	Applicable weighted average rate of interest	%	13.95
7	**Annual Interest amount**	**₹ Crores**	**344.45**

c. Depreciation:

72. Regulation 24 of the MPERC (Terms and Conditions for determination of Generation Tariff)Regulations, 2012 provides as under;

"For the purpose of Tariff, depreciation shall be computed in the following manner:

(a) The value base for the purpose of depreciation shall be the capital cost of the assets as admitted by the Commission.

(b) The approved/accepted cost shall include foreign currency funding converted to equivalent rupee at the exchange rate prevalent on the date of foreign currency actually availed.

(c) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

Provided that in case of Hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site:

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under Long-term power purchase agreement at regulated Tariff.

(d) Land other than land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(e) Depreciation shall be calculated annually based on 'Straight Line Method' and at rates specified in Appendix-II to these Regulations for the assets of the generating station:

Provided that, the remaining depreciable value as on 31st March of the Year closing after a period of 12 Years from the Date of Commercial operation shall be spread over the balance Useful life of the assets.

(f) In case of the existing Projects, the balance depreciable value as on 1.4.2013 shall be worked out by deducting the cumulative depreciation including Advance Against Depreciation if any as admitted by the Commission upto 31.3.2013 from the gross depreciable value of the assets.

The rate of Depreciation shall be continued to be charged at the rate specified in Appendix-II till cumulative depreciation reaches 70%. Thereafter the remaining depreciable value shall be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.

(g) *Depreciation shall be chargeable from the first Year of commercial operation. In case of commercial operation of the asset for part of the Year, depreciation shall be charged on pro rata basis."*

73. Regarding Depreciation, the opening Gross Fixed Assets of **₹ 3519.79 Crores** as on 19th May, 2015 (as per the Auditor's certificate based on actual expenditure) is considered in this order as opening GFA as on CoD of Unit No. 1. The petitioner has not filed additional capitalization in the petition. Therefore, no additional capitalization is considered up to 31st March, 2016. For the purpose of depreciation, the petitioner apportioned the soft cost of the project in the ratio of hard cost components of the project.

74. The weighted average rate of depreciation @4.84% is worked out by the petitioner based on the rate of depreciation for different capital cost components as per Regulations, 2012 and the detailed break-up of cost components filed in form TPS 11 of the petition. On examination of the claim in this regard, the depreciation on assets is provisionally determined as given below:

Depreciation:

Sr. No.	Particular	Unit	FY2015-16
1	Opening Gross Block	₹ Crores	3519.79
2	Addition during the year	₹ Crores	0.00
3	Closing Gross Block	₹ Crores	3519.79
4	Average Gross Block	₹ Crores	3519.79
5	Weighted average rate of depreciation	%	4.84
6	**Annual Depreciation amount**	**₹ Crores**	**170.36**
7	Dep. proportioned with respect to No. of days	₹ Crores	147.55

d. Operation & Maintenance Expenses:

75. Operation & Maintenance expenses are considered as per norms specified in Regulation 36.1 of MPERC (Terms and Conditions for Determination of Generation

Tariff) Regulations, 2012. The norms for O&M expenses for 600 MW and above unit (commissioned on or after 01.04.2012) as per regulations, 2012 for FY2015-16 is ₹15.09 Lakhs/MW. Based on the above, the Operation and Maintenance Expenses are determined as given below:

Operation & Maintenance expenses:			
Sr. No.	**Particular**	**Unit**	**FY2015-16**
1	Installed Capacity	MW	600
2	Per MW O&M expenses	₹ L/MW	15.09
3	**Annual O&M expenses**	**₹ Crores**	**90.54**

e. Cost of Secondary fuel oil:

76. Regulation 38 of the MPERC (Terms and Conditions for determination of Generation Tariff)Regulations, 2012 provides as under;

Expenses on Secondary fuel oil in Rupees shall be computed corresponding to normative Specific Fuel Oil Consumption (SFC) specified in Regulation 35, in accordance with the following formula:

= SFC x LPSFi x NAPAF x 24 x NDY x IC x 10

Where,

SFC - Normative Specific Fuel Oil Consumption in ml/kWh
LPSFi - Weighted Average Landed Price of Secondary Fuel in ₹/ml considered initially
NAPAF - Normative Annual Plant Availability Factor in percentage
NDY - Number of Days in a Year
IC - Installed Capacity in MW

77. With regard to landed cost of oil, Regulation 38.2 of the MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012 further provides as under;

"Initially, the landed cost incurred by the Generating Company on secondary fuel oil shall be taken based on actuals of the weighted average price of the three preceding months and in the absence of landed costs for the three preceding months, latest procurement price for the generating station, before the start of the Year."

78. By affidavit dated 5th June, 2015, the petitioner filed the CA certificate dated 1st June, 2015 certifying the actual start up fuel expenses during the month of March, April and May, 2015 for generation of infirm power. Based on the CA certificate, the weighted average rate of secondary fuel oil worked out as given below:

Wt. average rate of secondary fuel oil:

Month	Fuel Oil	quantity in KL	Rate (₹/KL)	Wt. average rate (₹ /KL)	Average of three months in ₹
15-Mar	LDO	2375.00	47581.46	41087.30	**40532.66**
	HFO	4608.23	37740.33		
15-Apr	LDO	1125.67	47581.46	39676.72	
	HFO	4595.21	37740.33		
15-May	LDO	405.17	47581.46	41497.04	
	HFO	656.22	37740.33		

79. Based on the above, the cost of secondary fuel oil (on the basis of the landed cost of secondary fuel oil for three proceeding three months duly certified by the CA) is considered as base figure for landed cost of oil and weighted average rate of secondary fuel oil is as given below:

(e) Secondary fuel oil expenses:

Sr. No.	Particular	Unit	FY2015-16
1	Installed Capacity	MW	600
2	NAPAF	%	85
3	Annual Gross Generation	MU's	4467.60
4	Normative Sp. Oil consumption	ml/kWh	1.00
5	Quantity of Sec. fuel oil	KL	4467.60
6	Rate of secondary fuel oil	₹/KL	40532.66
7	**Annual Cost of secondary fuel oil**	**₹ Crores**	**18.11**

80. The cost of secondary fuel oil arrived at as above shall be subject to fuel price adjustment at the end of each year of tariff period in terms of the proviso to Regulation 38.2 as per the following formula:

SFC x NAPAF x 24 x NDY x IC x 10 x (LPSFy – LPSFi)

Where,

LPSFy = *The weighted average landed price of secondary fuel oil for the year in ₹/ml*

f. Interest on Working Capital:

81. Regarding determination of working capital of thermal power project, Regulation 37.1 of the MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2012 provides as under;

The Working Capital for Coal based generating stations shall cover:

(i) Cost of coal for 45 Days for pit-head generating stations and two months for non-pit-head generating stations, corresponding to the normative availability;

(ii) Cost of secondary fuel oil for two months corresponding to the normative availability:

Provided that in case of use of more than one secondary fuel oil, cost of fuel oil stock shall be provided for the main secondary fuel oil.

(iii) Maintenance spares @ 20% of the normative O&M expenses;

(iv) Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the Normative Annual Plant Availability Factor; and

(v) Operation and Maintenance expenses for one month.

82. With regard to the cost of secondary fuel oil considered for the working capital purpose, the cost of only main secondary fuel oil (FO) is taken into account as per aforesaid provision under Regulations, 2012. The rate of HFO of ₹ 37740.34 / KL as considered in CA certificate dated 1st June, 2015, is considered for start-up fuel expenses. Clause 37.2 of the Regulations, 2012 provides that no fuel price escalation shall be provided during the tariff period. Therefore, the same rate of HFO as worked out above is considered for working capital purpose. The cost of two months main oil stock at normative availability is worked out as given below:

Two months cost of main secondary fuel oil:

Sr. No.	Particular	Unit	FY2015-16
1	Installed Capacity	MW	600
2	NAPAF	%	85
3	Two months stock of main fuel oil	KL	744.6
4	Rate of main secondary fuel oil	₹/KL	37740
5	**Cost of two months main fuel oil**	**₹ Crores**	**2.81**

83. Cost of coal for two months stock for working capital purpose, is worked out based on the norms specified by the Commission. The cost for coal stock is worked out for working capital on the basis of price and GCV of coal for three preceding months prior to COD of the unit as given below:

Sr. No.	Particular	Unit	FY2015-16
1	Station Heat Rate	Kcal/kWh	2407
2	Gross Calorific Value	Kcal/kg	3613.88
3	Annual Coal Quantity	MT	2987149
4	Two months coal stock	MT	497858
5	Rate of Coal for working capital	₹/MT	2113.00
6	**Amount of two months coal stock**	**₹Crores**	**105.20**

84. Receivables for working capital have been worked out on the basis of the fixed and energy charges for two months (based on primary fuel only) on normative plant availability factor as given below:

Sr. No.	Particular	Unit	FY2015-16
1	Variable Charges – two months	₹ Crores	105.20
2	Fixed Charges – two months	₹ Crores	144.47
3	**Receivables – two months**	**₹ Crores**	**249.67**

85. With regard to the rate of interest on working capital, Regulation 27.1 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2012 provides that:

> *“Rate of interest on working capital to be computed as provided subsequently in these Regulations shall be on normative basis and shall be equal to the State Bank of India’s Base Rate as on 1st of April of that year plus 3.50%.-----“*

86. The rate of interest on working capital for FY2015-16 has been taken equal to the State Bank of India’s Base Rate as on 1st April of that financial Year plus 3.50%. Base Rate of SBI effective from 07/11/2013, is 10.00%. The same has been considered to remain effective as on COD of Unit No. 1. The interest rate for FY2015-16 has been considered as 13.50% (10.00+3.50). Based on the above, the interest on working capital is determined as given below:

Interest on working capital:

Sr. No.	Particular	Unit	FY2015-16
1	Cost of coal for two months	₹ Crores	105.20
2	Cost of fuel oil for two months	₹ Crores	2.81
3	O&M Charges for one month	₹ Crores	7.55
4	Maint. Spares 20% of the O&M charges	₹ Crores	18.11
5	Receivables for two months	₹ Crores	249.67
6	Total working capital	₹ Crores	**383.32**
7	Applicable rate of interest	%	13.50
8	**Interest on working capital**	**₹ Crores**	**51.75**

Summary of Annual Capacity (fixed) Charges:

87. As per Regulation 35.2 (A) of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2012, Normative Annual Plant Availability Factor for recovery of annual capacity charges is 85%. The Annual Capacity (fixed) charges for FY 2015-16 have been pro-rated for 317 days. Considering the above, the annual capacity (fixed) charges for Unit No. 1 of Petitioner's Power plant, which are provisionally determined for FY 2015-16 in this order are as given below:

Annual Capacity (fixed) charges:			
Sr. No.	**Cost Component**	**Unit**	**FY2015-16**
1	Return on equity	Rs Cr.	191.56
2	Interest charges on loan	Rs. Cr.	344.45
3	Depreciation	Rs. Cr.	170.36
4	Operation & Maintenance expenses	Rs. Cr.	90.54
5	Secondary fuel oil expenses	Rs. Cr.	18.11
6	Interest on working capital	Rs. Cr.	51.75
7	Annual capacity (fixed) charges	Rs. Cr.	**866.77**
8	No. of days in operation during the year	No.	317.00
9	AFC apportioned in actual days of operation	Rs. Cr.	750.72
10	Annual capacity (Fixed) charges corresponding to 30% of the installed capacity of the Units	Rs. Cr.	225.22
11	**95% of the above AFC allowed to be recovered**	Rs. Cr.	**213.96**

88. The above-mentioned Annual Capacity (fixed) charges as provisionally allowed in this order are on normative plant availability factor (NAPAF) 85% for the thermal generating unit. The recovery of annual capacity (fixed) charges shall be made by

the petitioner in accordance with Regulations 40.2 and 40.3 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012.

Energy (Variable) Charges:

89. With regard to Energy (variable) Charges of thermal power station, Regulation 41 of MPERC (Terms and Conditions for determination of Generation tariff) Regulations, 2012 provides that;

- *"The energy (variable) charges shall cover main fuel costs and shall be payable for the total energy scheduled to be supplied to such Beneficiary during the calendar month on ex-power plant basis, at the specified variable charge rate (with fuel price adjustment).*

- *Energy (variable) Charges in Rupees per kWh on ex-power plant basis shall be determined to three decimal places as per the following formula:*

For coal fired stations

ECR = (GHR – SFC x CVSF) x LPPF x 100 / {CVPF x (100 – AUX)}

Where,

AUX= Normative Auxiliary Energy Consumption in percentage.
ECR = Energy Charge Rate, in Rupees per kWh sent out.
GHR = Gross Station Heat Rate, in kCal per kWh.
SFC = Specific Fuel Oil Consumption, in ml/kWh
CVSF = Calorific value of Secondary Fuel, in kCal/ml.
LPPF =Weighted average Landed price of Primary Fuel, in Rupees per kg, per liter or per standard cubic meter, as applicable, during the month.
CVPF = Gross Calorific Value of Primary Fuel as fired, in kCal per kg, per liter or per standard cubic meter. ------------

Variable charge for the month shall be worked out on the basis of ex-bus energy scheduled to be sent out from the generating station in accordance with the following formula:

Monthly Energy Charge (Rs) =
Variable Charge Rate in Rs/kWh X Scheduled Energy (ex-bus) for the month in kWh corresponding to Scheduled Generation."

90. The base rate of energy charges is based on the parameters like Gross Station Heat Rate, Landed cost of Coal, Gross calorific value and other operating

parameters prescribed under MPERC (Terms and Conditions for determination of Generation tariff) Regulations, 2012.

a. Gross Station Heat Rate:

91. The petitioner in its petition filed the Gross Station Heat Rate considering the design turbine cycle heat rate and design Boiler efficiency as given below:

Sr. No	Gross Station Heat Rate	Unit	Value
a	Design Turbine Cycle Heat Rate	kCal/kWh	1,945.70
b	Design Boiler Efficiency	%	86.10%
c	Design Heat Rate	**kCal/kWh**	**2,260.00**
d	Allowable Max Turbine Cycle Heat Rate	kCal/kWh	1,950.00
e	Min. Allowable Boiler Eff. as per Regulations	%	85.00%
f	Allowable Heat Rate	**kCal/kWh**	**2,294.12**
	Least of (c) and (f)	**kCal/kWh**	**2,260.00**
	Gross Station Heat Rate (1.065 x Design Heat Rate)	**kCal/kWh**	**2,407.00**

92. On scrutiny of the petition it was observed that the petitioner had not filed base performance parameters guaranteed by the manufacturer/supplier required for determination of Gross Station Heat Rate of the generating unit.

93. Vide daily order dated 25th November, 2014, the petitioner was asked to file the details of designed/guaranteed performance parameters of Turbine and Boiler furnished by the supplier.

94. By affidavit dated 6th December, 2014, the petitioner filed a copy of the contract for offshore supply along with the guaranteed operating parameters. On perusal of the aforesaid details filed by the petitioner, it is observed that the turbine cycle heat rate of the generating unit with 0% make up is 1945.70 Kcal/kWh and Steam Generator Efficiency is 86.10%. Accordingly, the Design Heat Rate of the unit is worked out as 1945.70/86.10% = 2260 Kcal/kWh. This value when multiplied by 1.065 (as per regulation 35.2 B) gives the Gross Station Heat Rate of 2407 kCal/kWh.

95. In view of the above, the Gross Station Heat Rate of 2407 Kcal/kWh for Unit No. 1 of the petitioner's Power Project is considered in this order.

b. Landed price of Coal:

96. The petitioner in its petition submitted that the Letter of Assurance for supply of 4.99 MTPA coal by SECL was granted vide letters dated 06.06.2009 and 12.08.2011 and 07.09.2011. Subsequently, the Petitioner entered into Coal Supply Agreement with SECL on 26.03.2013. As per the Coal Supply Agreement and its subsequent Addenda, the Annual Contracted Quantity (ACQ) of the coal to be supplied by SECL to Petitioner would be in proportion to the percentage of generation covered under the long term PPA executed by the Petitioner with the Respondent/Discoms. Accordingly, the current ACQ as per the Coal Supply Agreement and its subsequent Addenda is 1.897 MTPA of coal with a provision to further enhance the same as and when the balance Power Project capacity is tied-up under Long Term PPAs by the Petitioner.

97. With regard to the landed price of coal, clause 41.4 of MPERC (Terms and Conditions for determination of Generation tariff) Regulations, 2012 provides as under;

> *"The landed cost of coal shall include price of coal corresponding to the grade and quality of coal inclusive of royalty, taxes and duties as applicable, transportation cost by rail/road or any other means, and, for the purpose of computation of Energy Charges, shall be arrived at after considering normative transit and handling losses as percentage of the quantity of coal dispatched by the Coal Supply Company during the month.-------"*

98. Vide letter dated 28th February, 2015, the petitioner was asked to file the latest landed cost of coal. The petitioner was also asked to file the supporting documents like bills, laboratory test report etc. in this regard.

99. In response, by affidavit dated 5th June, 2015 the petitioner submitted that presently Coal is being supplied by SECL, a subsidiary of Coal India Limited (CIL).The petitioner filed the copy of invoices for cost of coal, railway freight, inland transportation charges and Coal Handling Agency charges in this regard. The petitioner filed the break-up of latest landed cost of coal as given below:

Particulars		
Siding		Kusmunda
Bill No.	SECL/4400/00290/April'15	
Bill Date		28.04.2015
Bill Quantity (MT)		3759.5
(A) Coal Cost [Rs./MT]		
Basic Price		700
Royalty	14%	98
Sizing Charges	79	79
Stowing Excise Duty	10	10
Surface Transportation Charges	57	57
Niryrat Kar @ 0.2% (Base Price + Sizing Charges)	0.20%	1.56
CG Development Tax	5	5
CG Environment Tax	5	5
Excise Duty	6.00%	57.33
Clean Energy Cess	200	200
Sub Total		**1212.89**
CST	2%	24.26
Sub Total		**1237.15**
(B) Logistic & Other Cost (Rs./MT)		
Railway Freight	518	552.7
CHA Expenses	46	46
Service Tax on CHA Charges		6.44
Transport from Anuppur Station to TPP	215	215
Service Tax on Road Transportation		7.53
Sub Total (B)		**827.67**
Total (A+B)		**2064.82**
Add: Entry Tax @ 5%		103.24
Grand Total		**2168.06**

100. By additional affidavit dated 7th March, 2015, the petitioner filed the additional claim for Coal Handling Agency Charges / Loading / Supervision Charges payable to coal handling agent. The petitioner in the aforesaid submission submitted the following:

"The Petitioner has appointed a Coal Handling Agent for performing the following services:

(a) Liasioning with SECL, Coal India, Railways, Coal Sampling Agency and other agencies for completing the necessary formalities for movement of coal by Rail to the Project;
(b) Monitoring the loading of rakes for quality and quantity as per Annual Contracted Quantity;
(c) Monitoring the transportation of coal by Rail.

The Coal Handling Agent shall be paid service charges at the rate of Rs. 46/MT of coal supplied and transported to site plus applicable Service Tax. The price is inclusive of all incidental expenses to be incurred to carry out the services.

By means of the agreement, the Coal Handling Agent would bear the vital responsibility of monitoring of coal transportation from SECL / other CIL sources through Indian Railways System to the power plant both in terms of quality and quantity. The Petitioner would also be insulated from any expenses towards demurrage / wharfage, overloading/ underloading charges being charged by Indian Railways other railway charges, higher transit loss, etc. It is stated that the appointment of a Coal Handling Agent is a normal practice in the industry and both state owned and IPPs appoint a Coal Handling Agent to optimise the quantity and quality of coal."

101. Vide letter dated 7th March, 2015, M.P. Power Management Co. Ltd. (Respondent No. 1) filed its reply to the above submission of the petitioner as given below;

"The Petitioner has sought to bring on record that it has appointed a "Coal Handling Agent" on payment of certain amount per ton of coal as service charges for Liaoning with Supply/ Transport/ Sampling and Other Agencies, Monitoring of Loading of Rakes for Quality and Quantity as per Annual Contracted Quantity (ACQ) and Monitoring the transportation of coal by Rail. Also, by way of Prayer (A) at Page No. 3351, the Petitioner has requested this Hon'ble Commission to approve said Coal Handling Agency charges as part of landed cost of coal. The Respondent strongly opposes the above contention of the Petitioner on following grounds-

a. Firstly, the said "Coal Handling Agency Charges" are not permissible as "Part of Landed Cost of coal" in the MPERC (Terms and Conditions for Determination of Generation Tariff) Revision-II), Regulation 2012 (Tariff Regulations 2012). Regulation 41.4 of the said Regulations is quoted below:

"Landed Cost of coal

41.4 The landed cost of coal shall include price of coal corresponding to the grade and quality of coal inclusive of royalty, taxes and duties as applicable, transportation cost by rail/road or any other means, and, for the purpose of computation of Energy Charges, shall be arrived at after considering normative transit and handling losses as percentage of the quantity of coal dispatched by the Coal Supply Company during the months as given below:

Pit head generating stations	*:*	*0.2%*
Non-Pit head generating stations	*:*	*0.8%*

As per the above provision, it should be ensured that for computing energy charges, quantity of coal as dispatched by the Coal Supply Company is taken after accounting for permissible transit and handling losses alone."

b. Secondly, the services of the said Coal Handling Agent are admittedly being availed by the Petitioner for minimizing anticipated inefficiencies/ underperformance of the other contacting parties, compensation/ penalties in respect of which are (or should have been) already built into the main contracts like Fuel Supply Agreement etc. The consumer cannot be burdened with this additional cost which is said to be incurred to ensure "good managerial practices", which in any case are expected to be observed by the Petitioner and other contracting parties, even in the absence of the said "Coal Handling Agency".

That as regards submissions made in Para 2(b) and Prayer (B) at page No. 3351 of the Petitioner, it is humbly requested that the same may kindly be dealt as per Tariff Regulation 2012."

102. In view of the above contention and also in light of the provision under Regulations, 2012, the additional coal handling agency charges as claimed by the petitioner are not considered as part of the landed cost of the coal. Therefore, the charges of ₹ 46 /MT and Service Tax on Coal Handling Agency Charges of ₹ 6.44 /MT as considered by the petitioner in the above break-up of landed price of coal is not allowed in this order.

103. Accordingly, the Commission has considered the landed cost of coal of ₹ 2113 /MT after reducing the Coal Handling Agency Charges and corresponding service tax on these charges in this order.

c. Gross Calorific Value:

104. With regard to the Gross Calorific Value of Coal, vide letter dated 28th February, 2015, the petitioner was asked to file the latest GCV of coal "as fired basis". In response to the Commission's query, by affidavit dated 5th June, 2015, the petitioner filed the details of coal analysis report as fired basis. The petitioner filed the average GCV of 3614 Kcal/kg and same is considered for determination of energy charges in this order.

d. Operating Parameters:

105. Clause 35.2 of the MPERC (Terms and Conditions for determination of Generation tariff), Regulations' 2012 provides the norms of operating parameters of all the generating Units/stations which are commissioned on or after 01.04.2012.

106. With regard to the auxiliary energy consumption, the normative aux. energy consumption for 600 MW units with steam driven boiler feed pumps is 6%. There is a provision to increase the norms by 0.5% with induced drafts cooling tower. The petitioner in its petition has confirmed that the induced draught cooling tower is using in its generating unit. Therefore, normative auxiliary consumption of 6.5% is considered for Unit No.1 of Project.

107. The petitioner's power station is considered as non pit-head and normative transit and handling losses of 0.80% of the quantity of coal dispatched by the coal supply company is considered as per Regulation 41.4 of Regulations, 2012.

108. In view of the above, the following norms of operation for 600 MW units have been considered as per MPERC (Terms and Conditions for determination of Generation tariff), Regulations' 2012:

Target Availability	85%
Gross Station Heat Rate	2407 Kcal/kWh
Aux. Energy Consumption	6.5 %
Sp. Oil Consumption	1 ml/kWh
Transit Loss	0.80%

109. Based on the above, the Energy Charges ex-bus for unit No.1 of the petitioner's power plant are determined as given below:

Energy (variable) Charges of Unit No. 1 M.B. Power Project:

Sr. No.	Particular	Unit	FY2015-16
1	Installed Capacity	MW	600
2	Normative Annual Plant Availability Factor	%	85
3	Gross Generation at generator terminals	MU's	4467.60
4	Net Generation at ex-bus	MU's	4177.21
5	Gross Station Heat Rate	kCal/kWh	2407
6	Sp. Fuel Oil Consumption	ml/kWh	1.00
7	Aux. Energy Consumption	%	6.50
8	Transit and handling Loss	%	0.80
9	Weighted average GCV of Oil	kCal/ltr.	10000
10	Weighted average GCV of Coal	kCal/kg	3613.88
11	Weighted Average price of Coal	₹/MT	2113
12	Heat Contributed from HFO	kCal/kWh	10
13	Heat Contributed from Coal	kCal/kWh	2397
14	Specific Coal Consumption	kg/kWh	0.6633
15	Sp. Coal consumption including transit loss	kg/kWh	0.6686
16	Rate of Energy Charge from Coal	₹/kWh	1.413
17	**Rate of Energy Charge from Coal at ex bus**	**₹/kWh**	**1.511**

110. The base rate of the energy charges shall however, be subject to month to month adjustment of fuel price and GCV of main fuel. The above energy charges have been calculated for the purpose of calculation of two months' billing, which is used for calculation of interest on working capital. However, the actual billing of energy charges shall be as per the formula and other provisions detailed in Regulation 41.2 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012.

Application fee and other Charges:

111. The petitioner is allowed to recover expenses towards filing of tariff petition directly from the beneficiaries, as per MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2012. In addition to the above, the petitioner is also entitled to recover other charges and taxes etc., levied by statutory authorities in

accordance under MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2012, as applicable.

112. In addition to the above other charges, the petitioner is also entitle to recover Electricity duty, cess and water charges payable by the Generating Company for generation of electricity from its thermal power station to the State Government if applicable, as per Regulation 42 of the MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2012 , on pro-rata basis.

113. The above tariff is provisionally determined for unit No.1 and shall be effective from its CoD i.e. 20th May, 2015 to 31st March, 2016 based on the Auditor's Certificate and other documents placed before the Commission during proceedings held in the matter. The provisional tariff so determined in this order shall be subject to adjustment as per Regulation 15.3 of the MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2012 on determination of the final tariff by the Commission after submission of the audited accounts and all other relevant details/documents and clarifications to the satisfaction of the Commission.

114. The petitioner is directed to file the final tariff petition at the earliest along with the Audited Accounts and all other required details / documents. The Unit-wise break-up of the figures in the audited accounts be also submitted by the petitioner with the final tariff petition in favor of its claims. All discrepancies and information gaps observed by the Commission in this order be eliminated while filing the final tariff petition.

115. The subject petition is for Unit No. 1 and 2 of the petitioner's power plant. The provisional tariff of Unit No. 2 shall be determined only after CoD of Unit No. 2 and submission of all relevant details and documents by the petitioner.

Ordered accordingly.

(Alok Gupta) **Member**	**(A. B. Bajpai)** **Member**	**(Dr. Dev Raj Birdi)** **Chairman**

Date : 29th July, 2015
Place : Bhopal

Annexure-"A"

Observations of the Commission and Response of the petitioner:

(A) Date of Commercial Operations:

Issues:

(i) The scheduled CoD of Unit 1 is November 2014 in terms of PPA executed between the parties. The Unit 1 has not achieved CoD till date and the petitioner is anticipating CoD of Unit 1 by 31st January' 2015. The petitioner is required to inform the following:

(a) The reasons for delay in achieving CoD of Unit 1.

(b) Whether any revised scheduled CoD has been agreed to by the other party in PPA i.e. M.P. Power Management Company Ltd., Jabalpur.

(c) Date of synchronization and the commercial operation (CoD) of the generating unit (s) be informed along with the certificate to be issued by the concerned Load Dispatch Centre as and when CoD is achieved.

Response:

*As regards Query (i) (a) and (i) (b), the Petitioner respectfully submits that as per the Power Purchase Agreement (hereinafter "**PPA**") signed with the Respondents herein, the Schedule COD of Unit–1 of the Petitioner's Project was 30.11.2014 (i.e., within 60 months of the execution of the Implementation Agreement dated 01.12.2009) (hereinafter "**SCOD**"). However, there has been a marginal delay of about 3/4 months in the commissioning of Unit-I of the Project. The Petitioner submits that Unit-I of the Project is on the verge of commissioning and is expected to commission by end of February, 2015 and in the Petitioner's reasonable assessment, not later than March, 2015. The Unit-I synchronization is slated to commence in February, 2015 pursuant to which trial operation of Unit I will start with gradual ramping up of load. The Petitioner has accordingly, requested Respondent No.1, the Procurer, to approve the extension of SCOD of Unit-I of the Project and the request is under consideration of Respondent No.1. Further, it is the Petitioner's understanding that delay of few months may not be critical for the Procurer.*

The Petitioner submits that it has been implementing the Project with all concerted efforts and has, as on date, achieved significant milestones towards commissioning of Unit-1 such as Boiler light up, Steam blowing, Turbine-Generator Box up, charging of Station Transformer and 400 kV Switchyard. However, despite its' best *efforts the Petitioner was unable to commission the Project on SCOD owing to various hurdles faced by it during the construction phase of the Project being, inter alia, delay in grant of Stage-II forest clearance, various challenges in acquisition of additional land for Barrage, disturbances/unrest at Project Site by motivated elements, unprecedented rains during monsoon, delay on account of filing of unwarranted Public Interest Litigations by meddlesome interlopers for personal gains, etc. It is respectfully submitted that the reasons for marginal delay in Project implementation were beyond the reasonable control of and not attributable to the Petitioner. The detailed evaluation of the grounds of delay was undertaken and duly approved by the lenders of the Petitioner's Project as detailed in the Project Information Memorandum which is on record as* ***Annexure 22****.*

As regards Query (i) (c), the Petitioner respectfully submits that it will provide the details regarding date of synchronization and commercial operation date along with certificate of concerned Load Despatch Centre as soon as Unit I of the Project is synchronized and declared under commercial operation.

(B) Capital Cost:

Issues:

(ii) It is observed that the following contracts have been awarded to Moser Baer Engineering and Construction Ltd./ Moser Baer Engineering and Construction Pvt. Ltd.

(a) Order for other than EPC civil works.
(b) Constructions of Barrage and non-overflow Dam.
(c) Construction of Railway Siding.
(d) Civil works of Ash Dyke (Part 1) including HDPE Lining

The petitioner is required to confirm whether the above contractors and the petitioner are related parties as defined in the Company's Act. If yes, the permission to be required from the Central Government for entering into contract be furnished. The details establishing that the contract awarded to them has resulted from transparent competitive bidding be also furnished.

Response:

It is respectfully submitted that the Petitioner, in furtherance of its' Project, awarded contracts to various public and private companies including but not limited to Hindustan EPC Company Limited (erstwhile known as Moser Baer Engineering and

*Constructions Limited) (hereinafter "**HECL**") and Hindustan Thermal-EPC Company Private Limited (erstwhile known as Moser Baer Constructions Private Limited) (hereinafter "**HTECPL**") by way of transparent competitive bidding.*

Contractor Name	Contract details	Date of execution of contract
*Hindustan EPC Company Limited (**erstwhile Moser Baer Engineering and Constructions Limited**)*	*Non EPC works - Boundary Wall (part), Fire Station, Time Office, Security Barrack, Administrative Building, Raw water Pipe Line*	*25.02.2010*
	Non EPC works - Township (part)	*25.02.2010*
	Supply of material and construction of ash dyke (part)	*24.09.2013*
	Supply of material required for construction of Railway Siding	*26.12.2011*
	Erection testing and commissioning of Railway Siding	*26.12.2011*
*Hindustan Thermal-EPC Company Private Limited (**erstwhile Moser Baer Constructions Private Limited**)*	*Construction of Barrage*	*28.09.2011*

*As regards these contracts, the Petitioner submits that the contracts awarded by the Petitioner to HECL and HTEPCL, respectively are governed by the Companies Act, 1956 and not the Companies Act, 2013 since all the aforementioned contracts were signed prior to the notification of the Companies Act, 2013. Under the Companies Act, 1956, the only section which requires the approval of the Central Government for entering into contracts is Section 297. In terms of Section 297 of the Companies Act, 1956, neither HECL nor HTECPL fall within the purview of the term 'related party'. In view thereof, the Petitioner was not statutorily mandated to obtain the approval of the Central Government for entering into the said contracts with HECL and HTECPL, respectively. Copies of Annual Return, capturing the details of the directors filed by the Petitioner, HECL and HTEPCL, respectively for the years 2010, 2011 and 2012 along with the latest list of directors as shown on the MCA website are attached hereto and marked as **Annexure 32 (COLLY)**.*

Further, as regards the award of the afore-mentioned contracts through transparent competitive bidding, the Petitioner submits as follows:

(a) <u>Order for other than EPC Works (Non-EPC)</u>:

*The Petitioner submits that the contract for Non-EPC works such as construction of boundary wall, approach roads, helipad, township, administration building, Fire Station, Security house, site grading, nala diversion, etc. was awarded to Consortium of Coastal Projects Pvt. Ltd (hereinafter "**CPL**") as Lead Member and HECL vide Letter of Award (hereinafter "**LoA**") dated 17.02.2010 being the lowest bidder among other following participating bidders:*

(i) Shapoorji & Pallonji Co.Ltd., Mumbai
(ii) Ahluwalia Contractors Limited, Delhi
(iii) D S Construction Limited, New Delhi

*It is submitted that based on the request received from CPL, part of the above Non-EPC works namely (i) Boundary Wall (part), Fire Station, Time Office, Security Barrack, Administrative Building, Raw water Pipe Line and (ii) Township (part) was awarded to HECL for execution on sole basis on same terms and conditions as that of the main contract. LoA dated 17.02.2010 and communication dated 22.02.2010 issued by the Consortium seeking approval of division of work from the Petitioner and Letter of Acceptance dated 25.02.2010 are on record as **Annexure 29** at Page No. 2609 to 2652 of Petitioner's Affidavit dated 06.12.2014.*

(b) <u>Construction of Barrage and non-overflow Dam</u>
The Petitioner humbly submits that the construction of Barrage and non-overflow Dam was awarded to HTECPL being the lowest bidder among other following participating bidders:
(i) Continental Construction Corporation Limited
(ii) Gammon India Limited

(c) <u>Construction of Railway Siding</u>
The construction of Railway Siding works was awarded to HECL being the lowest bidder as against Coastal Projects Private Limited, the other participating bidder. Petitioner submits that the works undertaken by HECL have been executed in accordance with the specifications provided and mandated by the Railway Authorities.

(d) <u>Civil Works of Ash Dyke (Part I) including HDPE lining</u>
The Civil Works of Ash Dyke (Part) including HDPE lining was awarded to HECL being the lowest bidder among other following participating bidders:

(i) Coastal Projects Private Ltd.
(ii) Shreeji Infrastructure India Private Ltd.

(iii) AMR India Limited (formerly AMR Constructions Limited)

(iv) Gannon Dunkerly & Co. Ltd.

*The afore-stated makes it abundantly clear that the Petitioner awarded contracts to HECL, HTEPCL and other companies by following a transparent competitive bidding process. Be that as it may, the Petitioner submits that the overall cost per MW of the Project is well within the benchmark price as stipulated by the Central Electricity Regulatory Commission (hereinafter "**CERC**") and in any event, the aggregate capital expenditure of the said contracts is Rs. 267.74 Crores which is less than 4% of the total Project cost.*

Issues:

(iii) The common facilities between Unit 1 & 2 and the apportionment of the cost of all such common facilities be submitted in terms of provisions under MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012. If any common facility is to be shared with Phase II of the Power Project, the details of such common facilities along with the apportionment of cost between the units of Phase I and II be also submitted.

Response:

*The Petitioner submits that it is maintaining Project level details of common facilities being used by Unit I and Unit II and it will tender the CA Certificate (s) for Unit wise apportionment of the cost of all common facilities in terms of Regulation 8.2 and 8.3 of Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2012 (hereinafter "**MPERC Tariff Regulations, 2012**") after COD of the respective units.*

As regards the query of the Ld. Commission with respect to common facilities between Phase I and Phase II, the Petitioner clarifies that Phase II is still in the conceptual stage and as such, at the present stage, there are no facilities specifically created for Phase-II and all facilities form integral part of the Project cost of Phase-I. It is humbly submitted that certain facilities such as Land, Barrage, Ash Dyke and Railway Siding may be common with Phase-II and will be put to use with requisite augmentation as and when Phase-II is planned. The Petitioner humbly submits the following with respect to the above said common facilities:

i. ***Land and Ash dyke***

The Petitioner has acquired 996 acre of land (including 93.5 acre of land under Revenue Forest Area) for main Plant Area for 2 x 600 MW thermal power Project *for which the Petitioner has already procured a prior Environment Clearance dated May 28, 2010 from the Ministry of Environment and Forest. This main Plant Area includes the land for Power Block, Ash dyke, Reservoir, Township, Green Belt and part of Railway Siding inside the Plant.*

The ash dyke inside the plant area, however, has limited ash storage capacity due to excessive quantum of rock encountered during excavation and will cater to disposal of ash corresponding to approximately 15 months only. The Petitioner has acquired additional 360 acres of land approx. outside the main Plant at a distance of approx. 3 km from the Project site to cater to balance requirement of ash storage for the Project. The Petitioner is in the process of obtaining environment clearance.

The Petitioner has incurred Rs. 5.45 Crores towards acquisition of this land parcel and has included the cost of land in the instant Petition for determination of tariff. Further, it is humbly submitted that the proposed estimate of constructing Ash Dyke on this land is Rs. 67 Crores in Project cost.

ii. ***Barrage***

The Petitioner has constructed a barrage for ensuring year round water availability for the Project. The Petitioner submits that the design and infrastructure of the Barrage is such that it cannot be augmented in the future to increase the water storage capacity to serve the water requirement of Phase II of the Project, which is still in the conceptual stage, and therefore, had to be constructed to its full capacity at this stage. It is also pertinent to point out that the Barrage is an essential part of the Project and integral to the commissioning of Phase I.

iii. ***Railway Siding***

The Petitioner has constructed necessary infrastructure for Railway siding to fulfill the requirements of Phase-I only. However, as and when Phase-II is planned, the railway siding will have to be augmented by building additional infrastructure and incurring additional cost. Accordingly the current railway siding is intended and adequate only for Phase I.

Issue:

(iv) The Audited Financial Statements of FY 2013-14 for the power project is required to be submitted. Pending the aforesaid audited financial statements of the project, the actual expenditure incurred up to the date of commercial operation of the unit(s) with detailed break-up of all cost components, duly

certified by a Charted Accountant be submitted for determination of provisional tariff.

Response:

*The Audited Financial Statements of FY 2013-14 are enclosed herewith and marked as **Annexure 33**. The Petitioner undertakes to furnish actual expenditure up to the date of commercial operation, duly certified by Chartered Accountant after COD of the respective units.*

Issue:

(v) Details of the works completed as on CoD of Unit 1 & 2 along with the details of balance works to be completed vis-à-vis the original scope of work be submitted.

Response:

It is respectfully submitted that the details of work completed as on COD of Unit I and Unit II along with the details of balance works to be completed vis-à-vis the original scope of work shall be submitted upon COD of the respective Units.

Issue:

(vi) It is observed from the Board's Resolution dated 21st October, 2009 (for investment approval of the project) that the initial project cost estimate of ` 6,240 Crores was subsequently revised to ` 8000 Crores vide Board's Resolution dated 4th August, 2014. The petitioner has filed the total estimated project cost of `8306.03 Crores in the petition. The reasons for increase in project cost from time to time be explained along with justification for increase in cost of each item with reference to the original/earlier estimated costs be informed.

Response:

The Petitioner respectfully submits that the total Capital Cost claimed in the Petition is Rs. 8306.03 Crore as against the initial Project cost of Rs. 6240 Crore as envisaged in the DPR and the reasons for such increase in the Project cost are as follows:

- *The original appraised Project cost at the time of financial closure (hereinafter "**FC**") was Rs. 6,240 Crore with a Debt-Equity ratio of 75:25 i.e., Rupee Term Loan of Rs. 4,680 Crore and Equity of Rs. 1,560 Crore;*
- *Subsequently, the appraised Project cost was revised by the bankers to Rs. 8,000 Crore. The additional Project cost of Rs. 1,760 Crore is being financed in Debt-*

Equity ratio of 70:30 i.e., Rupee Term Loan of Rs. 1,232 Crore and Equity of Rs. 528 Crore;

- *Out of the appraised cost of Rs. 8,000 Crore, 'Margin money for working capital' to the tune of Rs. 270 Crore was excluded by the Petitioner from the Capital Cost being claimed in the Petition;*
- *Customs and Excise Duty to the tune of Rs. 576 Crore has been included in the total Project cost in respect of which the Petitioner has partly paid in cash through equity to the tune of Rs. 75.79 Crore and for the balance has obtained a non-fund based facility ("BG facility") pending the grant of 'Mega power status' for the Project;*
- *Thus, the total Project cost arrives at Rs. 8306.03 Crore and is being funded by Debt and Equity in the ratio of 73.6: 26.4 with Debt of Rs. 6,115.69 Crore and Equity of Rs. 2,190.34 Crore. The derivation of the Capital Cost and Debt-Equity ratio is depicted in the table below:*

Particulars	Total (Rs Crore)	Debt (Rs Crore)	Equity (Rs Crore)
Original Capital Cost	*6240.00*	*4680.00*	*1560.00*
Additional Capital Cost	*1760.00*	*1232.00*	*528.00*
Total Appraised Cost	***8000.00***	***5912.00***	***2088.00***
Less: Margin Money for working capital	*270.00*	*199.53*	*70.47*
Add: Excise Duty / Customs Duty	*576.03*	*403.22*	*172.81*
Capital cost claimed for tariff purposes	***8306.03***	***6115.69***	***2190.34***
Debt Equity Ratio		*73.6%*	*26.4%*

As regards the justification for such increase in Project Cost, the Petitioner submits that the broad break-up of Project cost of Rs. 6240 Crore at the time of FC was as follows:

Particulars (Rs Crore)	Amount
Land and Site Development	*101.76*
Total EPC Cost	*4,372.10*
Total Non-EPC Cost	*561.81*
Prelim/Pre-operative and Misc. Exp.	*179.00*
Financing charges	*65.56*
Interest During Construction	*659.48*
Contingencies	*201.43*
Margin Money	*98.99*
TOTAL PROJECT COST	***6,240.12***

It is submitted that the above cost estimate, which was prepared in 2010, was based on certain assumptions viz. flat interest rate considered for loan, US$

Exchange rate prevailing at the time of preparation of DPR and phasing of funds. The major challenges faced by the Project over the last four years are as follows:

- *Additional land required for Railway Siding due to change in scope of work and Rehabilitation and Resettlement;*
- *Change in scope of certain aspects in the Project due to actual site conditions not envisaged at the time of preparation of DPR for the Project related to several aspects viz. additional Ash dyke, barrage, water reservoir, construction and start-up power, infrastructure and piling, etc.;*
- *Adverse exchange rate movement;*
- *Re-assessment of pre-operative expenses on account of various consultancy services availed, establishment of construction team, administrative and general expenses, pre-commissioning expenses and other incidental expenses, etc.;*
- *Upward movement of the applicable interest rates and related financing charges on account of loan syndication and additional loan requirement for the Project;*
- *Implementation delays due to belated grant of final forest clearance, afresh land acquisition for construction of barrage and appeal filed against the Project in the National Green Tribunal.*

As such all the above factors have contributed in terms of cost at the time of crystallization and therefore, the Project cost was re-assessed in November, 2013 by State Bank of India (Lead Bank) at Rs. 8,000 Crore compared to the original assessment of Rs. 6,240 Crore at the time of FC. The following table provides a head-wise comparative representation of Project cost estimate at FC and revised estimates:

Project Cost – Comparative Breakup

Particulars (Rs Crore)	***At FC***	***Revised***	***Inc./(Dec)***
Land and Site Development	*101.76*	*149.05*	*47.29*
Total EPC Cost	*4,372.10*	*4,610.47*	*238.37*
Total Non-EPC Cost	*561.81*	*916.66*	*354.85*
Prelim/Pre-operative and Misc. Exp.	*179.00*	*456.10*	*277.10*
Financing charges	*65.56*	*278.32*	*212.76*
Interest During Construction	*659.48*	*1165.77*	*506.30*
Contingencies #	*201.43*	*153.63*	*(47.80)*
*Margin Money ***	*98.99*	*270.00*	*171.02*
TOTAL PROJECT COST	***6,240.12***	***8,000.00***	***1,759.88***
TOTAL PROJECT COST (Rounded-Off)	***6,240.00***	***8,000.00***	***1,760.00***
#- Contingency provision of Rs. 201.43 Crore has been absorbed in EPC cost and additional provision for Rs 153.63 Crore has been made in the Revised Project Cost.			
Separate BG Facility Requirement			
*BG Facility Requirement for CD and ED Payments **		*570.00*	

Particulars (Rs Crore)	At FC	Revised	Inc./(Dec)
Additional BG Facility required for PPA, FSA etc	*250.00*		

US$/INR exchange rate of 60.00 has been assumed for estimating the value of the BTG contract.

* *in multiples of 10*

** *The margin money of Rs. 270 Crore assessed by MBPMPL and appraised by Lenders as Project Cost has not been claimed in the Regulatory Capital Cost for the subject Project in the current petition.*

Note: *The BG facility towards CD and ED payments for Project will be released on receiving the Mega Power Project status.*

The following section provides a brief head-wise assessment of Project cost elements and specific reasons for cost revision:

A. Increase in Cost of Land and Rehabilitation and Resettlement:

- *Net increase of Rs. 6.35 Crore owing to (i) increase in anticipated cost of land acquired for the main plant and compensation for right of way for raw water pipeline as against the initially estimated cost; and (ii) cost of land acquired for ash dyke and barrage outside the main plant area.*

- ***Additional Land required for Railway Siding*** *– The requirement of additional land has been estimated at approximately 103 Acres outside the main plant premises for the Railway Siding in terms of the revised Engineering Scale Plan approved by the statutory authority, South East Central Railway. Additional cost impact of Rs. 23.59 Crore is attributed to this reason.*

- ***Rehabilitation and Resettlement cost*** *– Additional cost impact of Rs.19.85 Crore is estimated in revised Project cost in terms of the provisions of Madhya Pradesh Rehabilitation and Resettlement Plan, 2002 and, National Rehabilitation and Resettlement Plan, 2007 for the people affected by acquisition of additional land for Railway Siding, barrage and ash pipeline.*

The Petitioner submits that the actual cost incurred under this head shall be ascertained at the time of COD.

B. Change in Scope of Work:

(viii) ***Railway Siding***

The Petitioner submits that based on preliminary engineering carried out at the time of submitting DPR to Railway Authorities for in-principle approval, it had envisaged track length of approx. 14 Km with an estimated cost of Rs. 35 Crore for civil, overhead electrification works and signaling and telecommunication system based on railway schedule rates notified in 2010. It is further submitted that the Engineering Scale Plan as initially submitted to Railways had to be revised in consultation with Railways on account of (i) shifting of exchange yard from Jaithari station to inside the plant area; and (ii) reduction in formation level work in plant area to enhance operation ease. On account of the afore-stated reasons, the Railway Siding cost was re-estimated at Rs. 118.75 Crore by Delhi Integrated Multi-modal Transit System Limited i.e. an increase of Rs. 83.75 Crore. The said increase is on account of following reasons:

- *Increase in track length by about 4 Kms and other incidental cost of overhead electrification works;*
- *Increase in cost of civil works on account of number and size of bridges which were not known at the time of preparation of DPR; and*
- *Revision of railway schedule rates.*

(ix) ***Ash Dyke***

The Petitioner submits that at the time of FC, the ash dyke was proposed to be built inside the plant area (near reservoir area). However, due to excessive quantum of rock encountered in the reservoir area during excavation, further excavation was stopped and it was decided to utilize the already excavated area with limited ash storage capacity by building bund in low ground area along with proposing the construction of another temporary ash dyke in the coal handling plant area. However, these together would cater to disposal of ash corresponding to approximately 15 months only. To cater to balance requirement of ash storage for the plant, the Petitioner proposed the construction of another dyke of approximate 3.3 MCM capacity outside the Main Plant at a distance of approx. 3 km from the Project site. The additional cost impact of Rs 96.88 Crore has been estimated under this head on account of construction of the above mentioned dykes including the HDPE lining of ash dykes (not envisaged earlier).

(iii) ***Water Reservoir:***

*The Petitioner submits that as per the contract awarded**,** at the time of FC, it had planned to build a reservoir having water storage capacity of 2.4MCM corresponding to about one month storage only. However, subsequently, to avoid any hydrological risk and adverse impact on Project due to poor water availability in*

River Sone during the lean season, it was decided to enhance the reservoir capacity. The additional cost impact of Rs. 31.90 Crore has been estimated on account of enhancing the capacity including the cost of HDPE lining to avoid water seepages which was not envisaged at the time of FC.

(x) ***Township***

The Petitioner submits that the contract of Township, at the time of FC, included construction of accommodation facility for 320 O&M personnel and other facilities such as school, hospital and guest house etc. However, during Project implementation based on detailed engineering and cost analysis, the awarded cost was sufficient for accommodation facility of 225 number of O&M Personnel only.

Additional cost impact of approximately Rs. 25 Crores has been estimated for Township on account of increase in scope of works including additional Civil and Plumbing works for Residential quarters (increase from 225 to 280 personnel) considering O&M of the Project with Chinese Equipment, additional electrification works, School facility up to Class 8th Standard and Hospital Facility with related infrastructure, Shopping Complex, Community Centre, etc.

(xi) ***Site grading and nala diversion***

The Petitioner submits that the scope of work envisaged at the time of FC in relation to site leveling works for main plant area included site grading and diversion of two nalas of approx. length of 5-6 Km through the boundary wall, removal of a small hill in the ash dyke area and filling of the original course of the nalas after diversion using excavated earth. However, during actual execution an additional impact of Rs. 34.16 Crore has been estimated on account of increased excavation work in rocks, constructing longer leads for disposal of excavated earth, additional construction works in south nala and laying of hume pipes along the boundary wall and concrete lining of both the Nalas which were not foreseen earlier.

(xii) ***Barrage***

The Petitioner submits that additional cost impact of Rs. 23.26 Crore has been estimated for Barrage works on account of following reasons:

(c) *Cost impact of Rs 10.77 Crore – Owing to change in the standard Project flood level during detailed engineering, design of barrage underwent significant changes resulting in increase in number and width of radial gates which resulted in increase in barrage concreting works.*

(d) Cost impact of Rs 12.50 Crore on account of Fish Pass arrangement which included supplies and civil works. The said Fish Pass was not envisaged at the time of FC and was constructed pursuant to direction of the National Green Tribunal in a Public Interest Litigation.

(xiii) ***Construction Power and Start up Power Infrastructure***

The Petitioner submits that at the time of FC, it had planned to source the construction power/ start-up power from a nearby sub-station. However, during detailed engineering and on enquiry from MP State Electricity Board it was understood that it would not be feasible to get the required connection from nearby substation for construction power. As a result thereof, the Petitioner had to set up infrastructure worth Rs. 7 Crore for sourcing construction power through 33 KV line.

The Petitioner submits that the 33 KV line capacity was not sufficient for start-up power requirement and as such, the Petitioner had to set up additional infrastructure worth Rs. 28.00 Crore to source power for start-up power requirement through 132 KV line from Chachai substation (approx. 25 Km away from the Project site). Net additional impact of Rs 21 Crore has been estimated by the Petitioner under this head.

(xiv) ***Piling Works***

*The Petitioner submits that initially soil investigation in the plant area could not be carried out owing to the challenges faced during land acquisition process and agitations by the locals. However, the Petitioner had gathered initial soil data from a nearby power project of MP Electricity Board of Chachai. Basis this initial soil data, it was deduced that no major piling would be required. However, subsequently Geo-Marine carried out a Geotechnical Investigation and submitted its' final report in December, 2010 i.e. after the award of EPC Contract in November, 2010. This soil report recommended piling in Chimney and Boiler Turbine Generator (hereinafter "**BTG**") areas. The Petitioner submits that while executing the BTG contract, Lanco Infratech Limited, the EPC contractor carried out a detailed soil investigation and piling was recommended for all heavily loaded structures including BTG and Chimney areas. Additional Cost Impact of Rs 99.18 Crore has been estimated for Piling works including the impact of Bulk Material Price Variation.*

C. Adverse foreign exchange rate movement

The Petitioner submits that the contract for supply of Boiler, Turbine and Generator has been awarded to Lanco Infratech Limited by way of International Competitive

*Bidding at US$360 Mn (fixed price contract). Based on the same, the estimated cost of the contract was Rs. 1,775.41 Crore at an average exchange rate of Rs. 49.31 per dollar. The appraised budget under 'Boiler, Turbine and Generator' head at the time of FC was Rs 1,887 Crore including provision of 30% expected liability for Custom duty on conservative basis. As on 30th November, 2013 (i.e. cut-off date for assessing the Project cost revision), the payments of US$211.99 Mn made by the Petitioner were financed through Rupee Term Loan (hereinafter "**RTL**") facility equivalent to US$124.44 Mn and Buyer's Credit (hereinafter "**BC**") facility of US$87.55 Mn. On the RTL facility drawn, the aggregate FERV variation was Rs. 7.45 Crore only over a period of about three years. The INR had initially appreciated to average rate of Rs. 44.72 per US$ at the time of advance payment but further depreciated to average rate of Rs. 57.37 per US$. As on cut-off date, the open FX position was US$ 87.55 Mn (BC) and the balance payment of US$ 148.01 Mn aggregating to US$ 235.56 Mn. At prevailing US$/INR exchange rate of Rs. 60.00, the estimated notional Forex Loss was estimated to be Rs 251.82 Crore for the open FX position. The aggregate FX Loss on BTG package was estimated to be Rs. 259.27 Crores. However, in light of the budget approved under the same head, the additional cost impact has been estimated at Rs 147.68 Cr. The Petitioner humbly submits that the actual cost impact under Foreign Exchange Rate Variation shall be only assessed after COD of the Project.*

D. Pre-Operative Expenses

The Petitioner submits that the total Pre-operative expenditure for the Project had been estimated at Rs. 179.00 Crore at the time of FC which was further bifurcated into Rs. 119.00 Crore towards various consultancy services including project management services and Rs. 60.00 Crore towards pre-commissioning expenses.

***Expenses incurred towards consultancy services:** The Petitioner submits that project management expenses include establishment cost, administrative and general expenses, repair and maintenance expenses, insurance, corporate communication expenses etc., during the construction period. Additional cost impact of Rs 277.10 Crore over the appraised project management expenses has been estimated on account of following reasons:*

- *Various consultancy services availed (not restricted to engineering consultancies but includes legal, financial, commercial, tariff related consultancy and miscellaneous consultancy, etc.);*
- *Establishment costs of Project construction team, back office support team from head office, gradual ramp up of O&M team to take over the Project as on COD, shared resources employed with other group companies, etc.;*

- *Administrative and general expenses including rent, travel, horticulture, employee health and safety expenses, office expenses, repair and maintenance expenses, insurance expenses and other miscellaneous expenses.*

Expenses incurred towards pre-commissioning expenses: *At the time of FC, cost under this head was estimated at Rs. 60.00 Crore. However, the revised estimate of expenses under this head is Rs. 106.30 Crore. This increase is owing to (i) escalation in power and water charges to the extent of Rs. 15.64 Crore. The increase is mainly attributable to expense incurred towards temporary HT connection issued for start-up power as per MPERC tariff order; and (ii) escalation in cost of start-up fuel and consumables after setting off revenue realized from sale of in-firm power to the extent of Rs. 30.66 Crore. The current revised estimate assumes coal at cost as per the FSA signed compared to the cost and GCV assumed at FC.*

E. Increase in interest rate and related financing charges:

a) Interest during Construction (IDC)

IDC had been estimated at Rs. 659.48 Crore at the time of FC. Revised estimate for IDC is Rs. 1,165.77 Crore and the difference of Rs. 506.30 Crore in cost is primarily on account of the following reasons:

- *Time over-run in commissioning of Project by 10 months from envisaged schedule at the time of FC;*
- *Increase in actual interest rate (current prevailing at 14.50% p.a. for original term loan of Rs. 4,680.00 Crore and 14.50% p.a. proposed for debt funding of cost overrun) during construction period compared to interest rate assumed at FC (11.75% p.a.).*

(b) Financing Charges:

It is respectfully submitted that as per the revised estimate, there is an increase of Rs. 212.76 Crore mainly on account of the following reasons:

- *As per the initial estimates, underwriting, upfront and processing fee on loan was considered @1.4%, whereas in the revised estimate, syndication fee on sanctioned debt amount was also considered leading to an increase of Rs. 21.38 Crore;*
- *The revised cost estimate also includes amount of Rs. 29.06 Crore on account of financing cost (1.75%) of additional debt of Rs. 1,232 Crore and working capital loan of Rs. 750 Crore @1.00%;*

- *Additional cost (@1.5%) has been incurred / estimated in the form of Indian Letter of Credit / Foreign Letter of credit;*
- *Buyer's credit financing charges*
- *Bank Guarantee charges @2% towards BG requirement towards Custom and Excise Duty payments;*
- *The ECB financing charges and its hedging cost for Exchange rate variation for facility extended by India Infrastructure Finance Company (UK) has been considered in the total financing charges.*

Further, it is humbly submitted that the detailed reasons for the Project cost over-run has been provided in the Project Information Memorandum submitted by the Petitioner as ***Annexure 22*** *to the additional Affidavit dated 06.12.2014 at internal Page No. 49 to 57 of the Project Information Memorandum.*

Issue:

(vii) It is observed that `576.03 Crores towards Custom and Excise Duties are included in the capital cost claimed in the petition. The petitioner has mentioned that it has partially paid the Custom and Excuse Duty in cash and the balance amount towards this head has been submitted in form of Bank Guarantees pending Mega Power Status of the project. The petitioner is required to file the copy of the provisional approval by the Government of India for Mega Power Status of the project. The petitioner is also required to inform the current status of the project and explain the reasons for considering the aforesaid amount incurred towards Custom and Excise Duty in the capital cost.

Response:

The copy of the Provisional Mega Power Status Certificate is enclosed herewith and marked as ***Annexure 34****. The expenses towards the Customs and Excise Duty payments have been made partly in cash and fixed deposit receipts (hereinafter "****FDR****") and partly through Bank Guarantees. The Bank Guarantees have been obtained by the Petitioner from its Bankers by placing FDRs as margin money. As such, the Petitioner has incurred a cost on non-fund based limits obtained in the form of Bank Guarantee. Therefore, the Petitioner has included the estimated expenditure towards the customs duty and excise duty payment in the capital cost. In the event that the Petitioner succeeds in obtaining the Mega Power Status and refund of customs and excise duty thereupon, it would approach the Ld. Commission for suitable adjustment in the Capital Cost.*

Issue:

(viii) While comparing the revised project cost vis-a-vis the original project cost as filed in form TPS-5B, the following is observed:

- **The cost of land and site development has increased by ` 47.30 Cr.**
- **The cost of Plant & Machinery (including BTG) has increased by ` 1032.05 Cr.**
- **The cost of Civil work has increased by ` 137.21 Cr.**
- **The cost of pre-operative/pre-commissioning expenses has increased by ` 277.1 Cr. and becomes approximately three times the original estimate**
- **The cost of railway siding has increased by ` 84 Cr.**

It is noted that the cost of certain items like land and site development, plant and machinery (including BTG) and pre-operative expenses have been increased by about 25% to 154%. The petitioner is required to explain the reasons for increase in the cost of all such item along with supporting documents. The financial statement duly certified by the Chartered Accountant appointed by the petitioner for the actual cost incurred as on date/CoD on each component claimed in the capital cost of the project be submitted.

Response:

The Petitioner respectfully submits that the detailed reasons for the increase in the cost of items such as land and site development, pre-operative expenses, plant and machinery, etc. has been provided in response to Query B (vi) above. The contents of the same are reiterated herein, not being repeated for the sake of brevity. Further, it is clarified that the classification of cost components in Query B (vi) is not identical to the classification in Form TPS-5B however, it is submitted that this difference is on account of variance in categorization / grouping of various item as the cost overrun has been assessed at each contract level by the Petitioner and not with respect to each cost component as captured in Form TPS-5B.

The Petitioner submits that it will furnish the CA Certificate for the actual cost incurred upon COD of the respective unit(s).

<u>Issue:</u>

(ix) IDC and financing charges have been increased by ` 572 Cr. Detailed calculation of IDC as on scheduled CoD and actual CoD of each unit be filed by the petitioner.

<u>Response:</u>

*The Petitioner respectfully submits that the detailed reasons for the increase in the IDC and financing charges have already been provided in response to Query B (vi) above. The contents of the same are reiterated herein, not being repeated for the sake of brevity. Further, the detailed calculation of IDC as on scheduled COD has been attached hereto as **Annexure 35**. Further, the Petitioner shall submit the CA Certificate upon the COD of respective unit(s).*

<u>Issue:</u>

(x) How the total capital cost is comparable with the benchmark norms specified by the CERC in its Order dated 04.06.2012 be also explained.

<u>Response:</u>

The Petitioner respectfully submits that the Bench Mark Capital Cost for 2x600 MW Green Field Coal based Thermal Power Project (taking 2011 indices as Base) is Rs. 4.54 Crore per MW, as per the CERC Order No. L1/103/CERC/2012, dated 04-06-2012 providing the Benchmark Capital Cost (Hard Cost) for thermal power station. Further CERC has provided a clarification on Benchmark Capital Cost, for thermal power stations with coal as fuel vide its aforementioned order, under Issue No. 6, Para No. 11.2 and the relevant extracts of the same have been reproduced below for ready reference :-

> *"However, to calculate the likely cost of similar package for another project, the fixed Component needs to be linked to escalation in WPI for the intervening period, which may be provided..."*

In view of the above, the indicated capital cost (hard cost) per MW of Rs. 4.54 Crore for 2x600 MW Thermal Power Project based on 2011 Index as base, needs to be escalated based on WPI Index and brought forward to November, 2014. The table hereunder shows that the Bench Mark capital cost of Rs. 4.54 Crore / MW translates, into a project cost (hard cost) of Rs. 5,448 Crore as on December, 2011, which after applying the escalation factor based on WPI Index, works out to Rs. 6,286 Crore translating into Rs. 5.24 Crore / MW. WPI Index of November 2014 is 181.5 as published by the Central Government.

Parameter	Identifier	Value
The WPI index at Dec-2011	*A*	*157.3*
The WPI index at Nov-14	*B*	*181.5**
Inflation factor	*C = (B/A-1)%*	***15.4%***
Benchmark Cost Based on Dec-2011	*D*	*Rs. 4.54 Cr/ MW*
Benchmark capital cost for 2x600 MW	*E = D * 2 * 600 MW*	*Rs. 5,448 Cr*
Escalation allowed up to November 2014	*F = E * (100% + C)*	*Rs. 6,286 Cr*
CERC Benchmark capital (hard) cost as at Nov'14	***G = F/1200***	***Rs. 5.24 Cr/MW***

**Note: Provisional figures*

Source: CERC, Office of the Economic Adviser

The hard cost for the Petitioner's Green Field 2x600 MW Anuppur Thermal Power Project in terms of CERC Order dated 04.06.2012 for Bench Mark capital cost, works out as under by removing expenses / estimates on account of IDC and financing charges, railway siding, barrage, contingency, township expenses and pre-commissioning expenses which were not considered by CERC while Bench Marking the capital cost (Hard Cost) of thermal power projects. The table herein below shows that the total estimated project completion cost of Rs. 8306.03 Crores translates into hard cost of Rs. 6,036.07 Crore which in turns works out to Rs. 5.03 Crore / MW.

Benchmarking for Petitioner's Project (2x600 MW)	Value in Rs. (Crore)
Project cost	***8306.03***
Less:	
Financing charges	*278.32*
Contingency	*60.00*
IDC	*1165.77*
Railway siding expenses	*118.75*
Barrage expenses	*101.50*
Township expenses	*89.52*
Pre-Commissioning	*456.10*
Total capital cost	***6036.07***
Cost per MW	***Rs. 5.03 Cr/ MW***
CERC Benchmark capital (hard) cost as at Nov'14	***Rs. 5.24 Cr/ MW***

In view of the above, the estimated completion cost of the Petitioner's Project is well within the Bench Mark capital cost for Green Field coal based power projects as indicated by CERC for 2x600 MW Thermal Project.

<u>Issue:</u>

(xi) The justification for cost and time overrun in the project along with its impact on the interest and finance charges be submitted. If the time and cost overrun was beyond the control of the petitioner, the details of responsible contractor/ vendor (s) and the liquidated damages (LD) recovered/to be recovered in different packages be also submitted.

<u>Response:</u>

The Petitioner submits that the reasons for time and cost overrun in the Project have been submitted in response to Query B (i) and B (vi) above and the contents of the said Paras are reiterated herein, not being repeated for the sake of brevity. Further, it is respectfully submitted that the liquidated damages (LD) recovered / to be recovered in different packages would be known at the time of contract settlement once the Project is commissioned and cut-off date is achieved.

<u>Issue:</u>

(xii) The un-discharged liabilities as on CoD and the list of works deferred along with the estimated cost for execution up to the completion/cut-off date in light of the Regulation 20 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012 be submitted.

<u>Response:</u>

The Petitioner respectfully submits that the un-discharged liabilities as on COD can be ascertained only after COD of the respective unit(s) and it is respectfully submitted that the same shall be furnished thereafter.

<u>Issue:</u>

(xiii) The petitioner has considered ` 217.67 Cr. for the cost of temporary construction under the civil works The details of the works considered under this head be submitted. The petitioner is also required to explain whether the aforesaid cost of temporary construction was considered in original estimated cost of the project.

<u>Response:</u>

It is respectfully submitted that the amount of Rs. 217.67 Crore has been estimated not only towards the cost of temporary construction but also includes the cost of civil works towards site development such as:

- *Enabling works of site grading and Nala diversion;*
- *Enabling works of boundary wall and fencing works;*

- *Approach roads;*
- *External sewerage and storm water drainage;*
- *Additional infrastructure set up for sourcing construction power;*
- *Additional infrastructure for drawl of start-up power from Chachai sub- station which is approx. 25 Km away from the Project site.*

The aforesaid cost of temporary construction was considered in the original estimated cost of the Project which has been reassessed in the revised cost.

(C) Transmission Line:

Issue:

(xiv) It is mentioned in Para 6.4 of the Project Information Memorandum that the Transmission Service Agreement was signed by the company with PGCIL for construction of transmission system based on Build, Own, Operate and Maintain (BOOM) basis and the payment of transmission charges shall be made by the petitioner as per the applicable CERC Regulations. The petitioner is required to confirm the following;

- **Whether any cost of the evacuation infrastructure is included in the capital cost claimed in the petition.**
- **Whether the transmission system for evacuation of contracted capacity has achieved CoD and ready for evacuation of contracted power from the project.**

Response:

As regards the Query of the Ld. Commission with respect to cost of the evacuation infrastructure, the Petitioner respectfully submits that the capital cost submitted in the subject Petition does not include any cost of the evacuation infrastructure.

As regards the Query of the Ld. Commission with respect to COD cost of the transmission system, the Petitioner submits that Respondent No.1 is required to obtain open access / connectivity for evacuation of scheduled energy from the delivery point i.e., ex-bus point of the Power Station Switchyard. Also, as per the First Addendum to the PPA dated 05.01.2011, Respondent is required, at its own cost, to establish or alternatively, ensure necessary infrastructure through CTU/STU or any other agency beyond the delivery point, required for evacuation of the scheduled energy.

*It is respectfully submitted that the power from each of the 600 MW units from the subject power station will be stepped up to the evacuation voltage Power Project's bus-bar through 400 kV D/C transmission line connecting the Power Project with 765/400 kV Jabalpur Pooling Sub-station of Power Grid Corporation of India Limited (hereinafter "**PGCIL**"). This transmission line has been completed and will be operated and owned by PGCIL. PGCIL has filed a petition for approval of its charges before CERC. The 400 kV Switchyard at the Petitioner's Project site has been charged. The Petitioner reserves its right to claim any transmission charges payable to PGCIL on account of commercial operation of above said transmission line connecting the Project with 765/400 kV Jabalpur Pooling Sub-station of PGCIL in terms of the PPAs signed with Respondent No.1.*

(D) Interest and Finance Charges:

Issue:

(xv) The petitioner has filed the lender-wise rate of interest on loan in form TPS-13 of the petition. The documents from each lender in support of applicable weighted average rate of interest claimed in the petition be submitted.

Response:

*The Petitioner respectfully submits that the Weighted Average Rate of Interest has been calculated on the basis of actual disbursement (tranche-wise), and rate of interest as on the date of disbursement. As per the Common Loan Agreement dated 16.11.2010 (hereinafter "**CLA**"), the interest rate is decided on each disbursement date separately, by each lender. The Banker Certificate towards the year wise interest incurred towards the Project along with the bank wise outstanding loan amount is enclosed herewith and marked as **Annexure 36 (COLLY)**.*

Issue:

(xvi) The financing charges originally estimated to ` 65.56 Cr. have now revised ` 278.32 Cr. The reasons of increase in financing charges of ` 212.76 Cr. along with supporting documents be filed by the petitioner.

Response:

It is respectfully submitted that as per the revised estimate, there is an increase of Rs. 212.76 Crore, mainly on account of the following reasons:

- *As per the initial estimates, Underwriting, Upfront and processing fee was considered @1.4%, whereas in the revised estimate, Syndication Fee on* *sanctioned debt amount was also considered leading to an increase of Rs. 21.38 Crore;*

- *The revised cost estimate also includes amount of Rs. 29.06 Crore on account of financing cost (1.75%) of additional debt of Rs. 1,232 Crore and working capital loan of Rs. 750 Crore @1.00%;*
- *Additional cost (@1.5%) has been incurred / estimated in the form of Indian Letter of Credit / Foreign Letter of credit;*
- *Buyer's credit financing charges ;*
- *Bank Guarantee charges @2% towards BG requirement towards CD / ED payments;*
- *The ECB financing charges and its hedging cost for Exchange rate variation for facility extended by India Infrastructure Finance Company (UK) has been considered in the total financing charges.*

The sanction letters for original cost from SBI and Axis Banks dated 17.06.2010 and 10.06.2010, respectively are on record as ***Annexure 26 (COLLY)*** *to Affidavit dated 06.12.2014 at Page No. 852 to 875. Further, it is submitted that the sanction letters from SBI and Axis Bank for revised cost are on record as* ***Annexure 28 (COLLY)*** *to Affidavit dated 06.12.2014 at Page. No. 1295 to 1377.*

Issue:

(xvii) Details of funding up to CoD of Unit-I along with the drawdown schedule for loan and details of equity infused with the actual debt-equity ratio be submitted.

Response:

The Petitioner submits that it has maintained only Project level draw-down schedule of debt and equity for project funding and not unit-wise allocation of draw-down schedule. Accordingly, it is humbly requested that the Ld. Commission may allow the Petitioner to submit the Project-wise quarterly draw-down schedule instead of the desired unit-wise schedule. Details of the quarter-wise debt and equity draw-down as on November 30, 2014 are attached hereto and marked as ***Annexure 37****.*

Issue:

(xviii) Unit-wise detailed calculation for year wise IDC in two parts (i) up to actual CoD and (ii) up to scheduled CoD be submitted. Calculation in excel sheet be also submitted in this regard.

Response:

The Petitioner respectfully submits that the actual IDC amount of the Project as on November 30, 2014 is to the tune of Rs. 1133.47. Crore. It is humbly submitted that the Petitioner had inadvertently mentioned the actual IDC amount up to November, 2014 to be Rs. 1164.36 Crore in place of Rs. 1137.11 Crore at Page No. 445 of Affidavit dated 06.12.2014. The expected additional IDC amount up to February 28, 2015 i.e. the expected commissioning date, will be approximately an additional Rs. 200 Crore therefore, the total IDC amount up to the expected commissioning date of February 28, 2015 will be around Rs.1333.47 Crore. Accordingly, the revised estimated project cost is likely to increase marginally on account of IDC, by an amount of Rs. 168 Crore approximately. Detailed calculations of actual IDC amount as on scheduled COD of November, 2014 are attached hereto and marked as ***Annexure 38****.*

The Petitioner further submits that the actual IDC incurred as on the date of COD shall be submitted after COD of the respective unit(s) duly certified by the C.A.

Issue:

(xix) Detailed computation for increase in IDC along with phasing of funding from Loan and Equity for the estimated capital cost/investment approval/financing plan vis-à-vis the actual achievements as on actual and schedule CoD be submitted.

Response to Query D (xix):

It is respectfully submitted that the details of IDC (of Rs. 659.48 Crore) along with phasing of funding through debt and equity towards the original estimated cost of Rs. 6,240 Crore are attached hereto and marked as ***Annexure 39****. Further, the Project cost was appraised to Rs. 8,000 Crore in November, 2013. Therefore, the increase in IDC estimates (i.e. Rs. 1,165.77 Crore) and phasing of funds in the revised cost estimate are based on actual draw-down of debt till November, 2013 and estimated further till expected COD (Unit-I 31st Oct'14 and Unit-II Jan'15) of the Project. The calculation towards the revised estimated IDC of Rs. 1,165.77 Crore is attached hereto and marked as* ***Annexure 40****.*

Issue:

(xx) On perusal of the Banker's certificate for weighted average interest rate filed by the petitioner, it is observed that the interest rate is on much higher side as compared to the weighted average rate of interest at which the funding is observed in the power sector during the same period. The reasons for high weighted average interest rate be explained with detailed justification.

Response:

It is respectfully submitted that the funding in Power Sector is governed by various factors viz. status of the entity i.e. Govt. / Public / Joint Venture / Private Ltd, various macro and micro economic factors, risk exposure and allocation to individual sector which is governed by RBI guidelines and credit policies of Govt. which vary from time to time.

*It is respectfully submitted that the Petitioner has actually been paying interest on RTL based on the prevailing State Bank of India's Benchmark Prime Lending Rate (hereinafter "**SBI BPLR**")/ Base Rate + margin and other terms and conditions as per the CLA . The movement in the SBI BPLR / Base Rate is influenced by macro economic factors over which the Petitioner has no control. A table depicting the movement in the SBI BPLR and SBI Base Rate from SBI Bank website is attached hereto and marked as **Annexure 41**. Further, the Banker Certificate for the year wise interest incurred towards the Project along with the bank wise outstanding loan amount is attached hereto and marked as **Annexure 36 (COLLY)** above.*

(E) Oil Expenses:

Issue:

(xxi) The petitioner has filed the invoices for purchase of furnace oil and LDO. The weighted average rate of secondary oil as per the invoices is worked out to ` 52,058/KL whereas, the petitioner has claimed ` 52,717/KL for FY2014-15 and `56,899/KL for weighted average rate of secondary oil in FY2015-16. The calculations for arriving at the weighted average rate of secondary fuel oil as per the invoices be filed by the petitioner.

Response:

*The Petitioner submits that the technical team of the Petitioner has estimated that the apportionment of Light Diesel Oil (hereinafter "**LDO**") and Heavy Furnace Oil (hereinafter "**HFO**") consumption would be in the ratio of 54:46. Further, the transportation cost of LDO/HFO from the depot of the oil marketing companies to the plant site has been added which is the reason for the difference between the oil cost considered in the Petition vis-à-vis the oil invoiced value. With a view to justify the oil transportation cost considered in the petition, the copy of the Letter of Intent signed with the transporters is enclosed herewith and marked as **Annexure 42.** The Petitioner has considered an annual increase of 8% in the oil prices and 5%*

increase in the transportation cost. The following table summarizes the assumptions in respect of the oil prices:

Particulars	FY 2014-15		FY 2015-16	
	HFO IS 1593	LDO IS 1460:1995	HFO IS 1593	LDO IS 1460:1995
Apportionment	54%	46%	54%	46%
GCV (kCal/KL)	9800	10200	9800	10200
Base Price plus Taxes	45207	58913	48823	63626
Transportation Cost	800	1600	840	1680
Total Landed Cost	**46007**	**60513**	**49663**	**65306**
Weighted Average GCV (kCal/KL)	**9985**		**9985**	
Weighted Average Price (Rs/KL)	**52717**		**56899**	

Issue:

(xxii) Basis for considering GCV 9985 Kcal/ltr of secondary fuel oil along with the supporting documents be also filed.

Response:

The Petitioner respectfully submits that it had, in the instant Petition, assumed the GCV of HFO to be 9800 kCal/ litre and that of LDO to be 10200 kCal/ litre. The lab analysis report for HFO and LDO is attached hereto and marked as ***Annexure 43****.*

Issue

(xxiii) While computing the working capital, the cost of only main fuel oil is to be considered as per Regulations, 2012 whereas, the weighted average cost of both type of fuel oil is considered in the petition. The reason for claiming the cost of both fuel oil for working capital be submitted.

Response to Query E (xxiii):

It is respectfully submitted that while computing the normative working capital, the Petitioner has considered the allowable cost towards secondary fuel oil in terms of the norm prescribed in the Tariff Regulations which is 1 ml/kWh. Further, it is clarified that LDO would be used as start-up fuel and HFO would be used as oil support for flame stabilization. The Petitioner while computing the normative working capital has only considered a weighted average cost of both the fuels i.e., LDO and HFO.

(F) Infirm power:

<u>Issue:</u>

(xxiv) The petitioner is required to file the details of revenue earned from sale of infirm power duly certified by SLDC along with the details of fuel expenses incurred in generation of infirm power duly certified by the Chartered Accountant.

<u>Response:</u>

The Petitioner respectfully submits that, as presently none of the Unit(s) have achieved COD, the quantum of fuel consumed, revenue earned from sale of infirm power and infirm power generated from date of synchronization to COD shall be submitted after COD of the respective unit(s).

<u>Issue:</u>

(xxv) The petitioner is required to confirm whether the revenue generated from sale of infirm power has been accounted for in the capital cost claimed in the petition. This amount needs to be indicated separately in the capital expenditure incurred as on CoD duly certified by the CA.

<u>Response:</u>

The Petitioner respectfully submits that revenue earned from sale of infirm power from date of synchronization to COD shall be submitted after COD of the respective unit(s).

(G) Coal Cost:

<u>Issue:</u>

(xxvi) The petitioner has filed the latest purchase price and GCV of coal as per provisions under Regulations, 2012. With regard to the cost and GCV of coal, the following is observed:-

- **The petitioner has filed weighted average GCV of coal (domestic + imported) 4380 Kcal/kg “As fired basis”. The coal analysis reports in support of GCV of coal “As fired basis” be filed as per provision under Regulations, 2012.**

- **The petitioner has claimed `2885/MT for FY2014-15 and `3058/MT for FY2015-16 for weighted average landed price of coal (domestic + imported). The petitioner is required to submit the following:**

- **Annual coal requirement on normative parameters for generation of contracted capacity vis-à-vis coal to be received from SECL under FSA**
- **The basis for considering 20% imported coal for generation of contracted power.**
- **Reference notifications for considering vikas/paryavaran, Excise duty, Terminal Tax, Forest Cess, Excise duty, Education Cess, SHE Cess, Clean energy cess etc.**
- **Copy of railway freight invoice for considering transportation charges for linkage coal**
- **Basis of landed cost of imported coal worked out by the petitioner.**

➢ **While determining the Energy Charges (Annexure 18), the petitioner has considered coal cost as well as the oil cost. The reasons for considering oil cost for Energy Charges in Annexure 18 be explained.**

➢ **In format-I, the petitioner has mentioned "Fuel Cost (Domestic Coal)" whereas the weighted average GCV and landed cost of domestic and imported coal is claimed in the petition. This discrepancy be rectified by the petitioner.**

<u>Response:</u>

As regards the submission of the coal analysis report, the Petitioner respectfully submits that the coal analysis report on "as fired basis" would be submitted upon synchronization and COD of the Unit-1.

As regards the queries with respect to weighted average landed price of coal, the Petitioner submits as follows:

▪ *The annual coal requirement for generation of contracted capacity is estimated to be approx. 2.30 MTPA, considering an average GCV of coal to be 4000 kCal/kg, station heat rate of 2410 kCal/kWh and auxiliary energy consumption of 6.50%. As against this, the FSA signed with SECL is towards an annual contracted quantity of 1.89 MTPA which is around 80% of the annual coal requirement for generation of the contracted capacity;*

▪ *The Petitioner respectfully submits that in the light of the shortfall of linkage coal as stated above, it has considered 20% imported coal for generation of the contracted* *capacity. It is pertinent to mention here that in the FSA signed with SECL, there is no penalty on SECL for supply of coal "Below 100% but up to 80% of ACQ". Thus, even within the annual contracted quantity (hereinafter "**ACQ**"), there is a risk that the Project may receive lower quantity than the ACQ. The Petitioner respectfully submits that it would raise the monthly bills for energy charges (including supplementary bills for fuel price adjustment) based on the actual blending ratio and weighted average coal cost which may vary on month to month basis, considering the supply of linkage coal by SECL;*

- *The basis of charge for vikas/ paryavaran, excise duty, terminal tax, forest cess, excise duty, education cess, SHE cess, clean energy cess, etc., can be verified from the coal invoice raised by SECL and also a pricing summary sheet issued by SECL. The copy of coal invoice and SECL pricing summary sheet are annexed hereto and marked as **Annexure 44 (COLLY)**;*
- *Copy of the railway freight invoice for considering transportation charges of linkage coal is attached hereto and marked as **Annexure 45 (COLLY)**;*

- *The Petitioner respectfully submits that the purchase of imported coal would be necessitated due to shortfall in the annual coal requirement for generation of contracted capacity. The basis of estimation of landed cost of imported coal has already been submitted as **Annexure P-18** at Pages 405 to 413 to the instant Petition.*

As regards the Query of the Ld. Commission with respect to inclusion of oil cost as part of energy charges, the Petitioner submits that only coal cost has been considered for calculating the energy charges and the oil cost presented is for indicative purpose only.

Further, the Petitioner humbly submits that the fuel cost depicted in Format-I consist is of both domestic and imported coal. The term "fuel cost (Domestic Coal)" in Format-I may kindly be read as "Fuel Cost (Domestic + Imported Coal)".

(H) Tariff filing formats:

<u>Issue:</u>

(xxvii) Some of the tariff filing formats filed by the petitioner are not filled up completely/properly. The petitioner is required to revise the following formats:

- **Form TPS-5A regarding "abstract of capital cost estimates and schedule of commissioning for the new projects" is missing. This format duly filled up with all the details be filed.**

- **Form TPS-5B is partially filled-up by the petitioner. The break-up of capital cost under the head prescribed in this form TPS-5B along with liability, if any, and the reasons for variation from the original estimated project cost be filed. Unit wise break-up of capital cost as on CoD of unit 1 be also filed.**

- **Form-TPS 5C for detailed break-up of construction/supply/service package is also partially filled up. Details like name of the contractor/service provider, actual expenditure till date or CoD of unit No. 1 and IDC and finance charges be filed in revised form.**

- **Form TPS-7 regarding "Details of project specific loans" is missing. The details of project specific loans under the heads specified in form TPS-7 be submitted.**

- **The petitioner has not filed the form TPS-9 regarding "additional capitalization after CoD". The petitioner is required to confirm the details of additional capitalization if any, anticipated after CoD of the units. The petitioner is also required to file the forms TPS-9A and TPS-9B pertaining the details of capital cost and capital works in progress after CoD of each unit**

- **By additional affidavit dated 6th December, 2014, the petitioner has filed the quarterly draw down schedule for the project. The aforesaid information is not in the manner as specified in form TPS-14. The lender wise quarterly draw down schedule for calculation of IDC and financing charges as per Form TPS-14 be filed. The petitioner is also required to file the quarterly phasing of capital expenditure initially approved/envisaged in this regard.**

Response:

*The soft copy of the Tariff Filing Formats is enclosed herewith and attached as **Annexure 46**.*

(I) Other observations:

Issue:

(xxviii) The petitioner is required to confirm that no PPA has been executed as on date by the petitioner with any party other than the respondents in the matter

for sale of power from the project under Section 62 of the Electricity Act, 2003.

Response:

The Petitioner respectfully submits that it has not signed any PPAs under Section 62 of the Electricity Act, 2003 with any party other than the respondents herein for sale of power from the Project. However, the Petitioner submits that it has signed a PPA for supply of 361 MW (net of auxiliary consumption) with state discoms of Uttar Pradesh through PTC Limited under Case-1 bidding guidelines.

Issue:

(xxix) The reason for considering Corporate Tax for Return on Equity with all relevant documents be submitted.

Response:

*The Petitioner submits that it has claimed the applicable normal corporate tax rate for grossing up of Return on Equity as prescribed by Regulation 22.3 of the Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) (Revision-II) Regulations, 2012 (hereinafter "**MPERC Tariff Regulation, 2012**"). Further, the Regulations provide for adjustment with respect to variation in tax rate applicable to the Generating Company at the time of truing up. The said clause of the Regulations is reproduced below:*

> *"The rate of return on equity shall be computed by grossing up the base rate with the **normal tax rate** for the Year 2012-13 applicable to the Generating Company:*
>
> ***Provided that return on equity with respect to the actual tax rate applicable to the Generating Company**, in line with the provisions of the relevant Finance Acts of the respective Year during the Tariff period **shall be trued up separately**." **(Emphasis supplied)***

The Petitioner submits that it is a Special Purpose Vehicle (SPV) Company and it had incurred a marginal loss in FY 2012-13 and hence, no income tax was payable by it in such year. However, subsequent to commercial operation of the unit(s), the Petitioner would earn Return on Equity and as such would be liable to pay income tax at the normal tax rates.

Issue:

(xxx) The reason for claiming 6.5% Aux. consumption and the reasons for considering the induced draught cooling tower in Format TPS 2 be explained.

Response:

*The Petitioner respectfully submits that it has claimed a normative auxiliary consumption of 6.50% in line with Regulation 35.2 D of the MPERC Tariff Regulation, 2012 which prescribes a normative auxiliary energy consumption of 6% for thermal units with steam driven boiler feed pumps and an additional 0.50% for thermal generating stations with induced draft cooling towers (hereinafter "**IDCT**").*

The Petitioner submits that the cooling towers at the Power Project are of induced draft type which were preferred over natural draft type considering the climatic conditions of the region of Anuppur area and the advantages of IDCT over natural draft cooling towers in terms of construction period, cost and area requirement.

Issue:

(xxxi) The soft copy of all formats in excel be also submitted.

Response:

*Soft copy of the Tariff Filing Formats is already attached as **Annexure 46** to the instant Affidavit.*

Petitioner's Response to the queries raised vide Commission's letter 28th February'2015

1. **Issue:**
   The units in the project are not synchronized with the grid till date. The Unit 1 is expected to be declared under commercial operation by March, 2015. The approval for extensions of SCOD of Unit 1 from Respondent No. 1 has not been obtained. Therefore, the petitioner is required to submit the following to the Commission:

   (a) The documentary evidence in respect of each reason for delay in achieving CoD of Unit 1.

Petitioner's Response:

*(a) At the outset, the Petitioner submits that Unit-I of the Project was synchronized with the grid on 19.03.2015 and has been commissioned (achieved full load) on 20.04.2015. Further, Unit I completed the trial run operation of 72 hours on May 15, 2015 and the commercial operation date (hereinafter "**CoD**") of the Unit I has been*

*achieved at **00:00 Hrs on 20th May 2015**. Copy of Communication dated 24.03.2015 issued by the Petitioner to the Hon'ble Commission along with certification from Western Regional Load Despatch Centre (hereinafter "**WRLDC**") and Letter dated 20.04.2015 issued by Central Electricity Authority (hereinafter "**CEA**") confirming the commissioning of Unit I are attached hereto and marked as **Annexure 47 (COLLY)**. Copies of the Performance Test Certificate dated 16.03.2015 issued by the Independent Engineer, Desein Private Limited, the Witness Report of the designated representative of Respondent No.1 and acceptance of the Performance Test and date of CoD by the Respondent No. 1 vide letter dated 19.05.2015 are attached hereto and marked as **Annexure 48 (COLLY).** Further, the Western Regional Power Committee (hereinafter "**WRPC**") has confirmed the COD of Unit-I w.e.f. 00:00 hrs of 20.05.2015. Copy of the Communication dated 19.05.2015 of WRPC is attached herewith and marked as **Annexure 49**.*

*As regards Query 1 (a), the Petitioner submits that, despite its' best efforts, it was unable to achieve SCOD of Unit-I owing to various hurdles faced by it during the implementation phase of the Project being, inter alia, delay in grant of Stage II Forest Clearance, various challenges in acquisition of additional land for Barrage, disturbances/unrest at Project Site by motivated elements, unprecedented rains during monsoon, delay on account of filing of unwarranted Public Interest Litigations by meddlesome interlopers for personal gains, etc. It is respectfully submitted that the reasons for marginal delay in Project implementation were beyond the reasonable control of and not attributable to the Petitioner. The detailed evaluation of the grounds of delay was undertaken and duly approved by the lenders of the Petitioner's Project as detailed in the Project Information Memorandum which is on record as **Annexure 22**. The brief reasons and documentary evidence substantiating the reasons for the marginal delay in SCOD are produced herein below:*

*(i) The Petitioner respectfully submits that there was an inordinate delay of fourteen months (14) in grant of Stage-II Forest Clearance (17th August, 2011) from the date of grant of Stage-I Clearance (4th June, 2010). This delay was beyond the Petitioners' control and is attributable to the State agencies. Copies of the Stage I and Stage Forest Clearance are attached hereto and marked as **Annexure 50**.*

*(ii) **<u>Protests:</u>** The Petitioner respectfully submits that during the Construction Period, the Project witnessed constant disturbances/unrest at the Site on account of protests carried out by residents/ villagers over compensation for land acquired by the Petitioner for the Project at the instance of external and unscrupulous elements and as such, could not carry out uninterrupted construction activities. Some of the major events which resulted in interruption/stoppage of construction works at the Site from time to time and delayed the commissioning of the Project are detailed herein below:*

Period		***Reasons of Work Interruption***	***Area Affected***	***Documentary Evidence***
From	***To***			
24.01.2011	*01.02.2011*	*Labour Unrest; Local Villagers intruded the*	*Complete Site Closed*	*News Articles in local dailies from 25.01.2011 to*

Period		***Reasons of Work Interruption***	***Area Affected***	***Documentary Evidence***
From	***To***			
		plant; fatal attacks		*01.02.2011*
26.02.2011	*12.03.2011*	*Local Villagers Unrest on petty wage issues; committed fatal attacks; Work re-commenced after 12.03.2011*	*Complete Site was closed*	*News Articles in local dailies from 26.02.2011 to 12.03.2011*
02.12.2011	*03.12.2011*	*Agitation by Bhartiya Kisan Union at Plant Main Gate*	*Complete Site was closed*	*News Articles in local dailies from 02.12.2011 to 03.12.2011*
04.02.2012	*09.02.2012*	*Agitation Rally by Bhartiya Kisan Union at Main Gate*	*Complete Site was closed*	*News Articles in local dailies from 4th Feb 2012 to 9th Feb 2012*
05.05.2012	*08.05.2012*	*Rally by Bhartiya Kisan Union (Distt. SP and others were injured) at Main Gate*	*Complete Site was closed*	*News Articles in local dailies from 05.05.2012 to 08.05.2012*
17.01.2015	*19.01.2015*	*Agitation by local villagers for the part of the land for Railway Siding; Several Police officials injured; labour at plant stopped the work for two days*	*Complete Site was closed*	*News Articles in local dailies from 18.01.2015 to 21.01.2015*

Copies of news articles/ clippings in the local newspapers substantiating the afore-stated are attached herewith as ***Annexure 51 (COLLY)****.*

(iii) ***<u>Rainfall:</u>*** *The Petitioner respectfully submits that the Project witnessed unusually heavy rainfalls repeatedly (non-monsoon months) during the Construction Phase of the Project, which severely affected the Construction Works. Copy of the rainfall data of the Indian Meteorological Department updated till year 2013 as well as the Petitioner's own data recorded at the Site for year 2014 is attached hereto and marked as* ***Annexure 52****.*

Average Rainfall Data (mm)						***% Departure from long term average for the respective month***			
	2010	*2011*	*2012*	*2013*	*2014*	*2010*	*2011*	*2012*	*2013*
	Met. Deptt. Data				***Site Data***				
January		*0*	*73*	*3.5*	*0*		*-100%*	***147**%*	*-88%*
February		*0*	*2.6*	*70.4*	***132***		*-100%*	*-90%*	***184**%*
March	*0*	*0*	*0*	*3.5*	*44*	*-100%*	*-100%*	*-100%*	*-83%*
April	*0*	*0*	*0.8*	*4.1*	*29.5*	*-100%*	*-100%*	*-95%*	***179**%*
May	*0*	*0*	*3.6*	*0.2*	*0*	*-100%*	*-100%*	*-82%*	*-99%*
June	*43*	*258.3*	*251.6*	*226.9*	*124*	*-78%*	*45%*	*-71%*	*28%*
July	*258.2*	*205.2*	*462.9*	*263.3*	*338.5*	*-33%*	*-47%*	*20%*	*-32%*
August	*264.2*	*407.6*	*297.1*	*331.6*	*346.5*	*-33%*	*5%*	*-23%*	*-14%*
September	*252.9*	*425.1*	*136.7*	*123.4*	*265.5*	*11%*	***90**%*	*-39%*	*-45%*
October	*4.5*	*0*	*16.5*	*204.4*	*154*	*-92%*	*-100%*	*-65%*	***336**%*
November	*4*	*0*	*59.6*	*0*	*3*	*-64%*	*-100%*	***636**%*	*-100%*
December	*18.2*	*0*	*5.2*	*0*	*12*	*70%*	*-100%*	*-66%*	*-100%*

Source: India Meteorological department (2010-2013)

The Table above makes it abundantly clear that the Project had witnessed unconventional heavy rains in the months of September 2011, January 2012 and November 2012 severely affecting the Construction Works at the Site. Similarly the Site and Barrage works were again severely affected due to heavy unconventional rainfall in February 2013, April 2013 and October 2013. Though the Met Department data is updated till year 2013, the Petitioner submits that the month of February of 2014 again witnessed unusual heavy rainfall which affected the Construction Works.

It is pertinent to mention that the reasons for delay in Project implementation were beyond the reasonable control of and are not attributable to the Petitioner.

Issue 1(b):

(b) The approval of Respondent No. 1 for extension of SCOD as and when it is obtained by the petitioner.

Petitioner's Response:

The Petitioner submits that the request for extension of SCOD of Unit I up to 30th April, 2015 made by the Petitioner has been approved by Respondent No.1. Copy of the approval letter of Respondent No.1 dated 16.04.2015 is attached hereto and marked as ***Annexure 53****. Further, the Petitioner had requested Respondent No.1 vide communication dated 16.05.2015 for approval of extension of SCOD of Unit-I up to 19.05.2015. Copy of communication dated 16.05.2015 is enclosed herewith and marked as* ***Annexure 54****. It is the understanding of the Petitioner that a further extension of 19 days may not be critical for Respondent No.1. The Petitioner submits that a copy of the approval for further extension upto 19.05.2015 will be submitted before the Hon'ble Commission as and when it is received by the Petitioner.*

2. **Issue:**
   Regarding the issue of 'related party' and the approval of Central Government for entering into some contracts with the group companies i.e. HECL and HTEPCL, the contention of the petitioner is not clear. Therefore, the petitioner is required to explain its contention on this issue in light of the details of Directors and the shareholders of petitioner's company and the other two companies. The contention of petitioner in this regard be certified by its Company Secretary/ Statutory Auditor.

Petitioner's Response:

The Petitioner submits that the Petitioner Company and the Companies to which the contracts have been awarded are not related parties. The Certificate of the Statutory Auditor and the Company Secretary duly certifying the stand of the Petitioner is attached hereto and marked as ***Annexure 55****.*

3. **Issue:**
   Issue 3(a):
   The present status of all clearances for Phase II of the project be submitted. The petitioner is also required to confirm whether the Land and Ash Dyke for which the cost is claimed in the subject petition will suffice the requirement of Phase II also. This also needs to be informed that the infrastructure of Railway Sidings which has been built up for Phase I would be used for Phase II also after augmentation of the same.

Petitioner's Response:

As regards the Query of the Hon'ble Commission with respect to present status of clearances for Phase-II of the Project, the Petitioner respectfully submits that due to non-availability of coal either through linkages or mines, Phase II is still in the conceptual stage and its implementation shall be taken up only after firm availability of coal. As such, at the present stage, no clearances have been obtained for Phase II of the Project. The relevant extract of the Phase-II PPA dated 23.08.2013 is reproduced herein below:

"3.3.5 Notwithstanding the above terms contained in Clause 3.2 and 3.3 the parties agree that in the event of the Company deciding to abandon the Project at any time within 36 months from the Effective Date for non-availability of Fuel and in consequence thereof the Company unconditionally and irrevocably surrenders all privileges, rights, and interests under the IA to the GoMP, the Company shall be entitled to terminate this Agreement without any liability to pay liquidated damages. In such an event the Company shall have no right to develop the Project and no claim against GoMP for cost and expenses incurred by the Company in the development of the Project."

Copy of the relevant extract of the Phase II PPA dated 23.08.2013 is attached hereto and marked as ***Annexure 56****.*

As regards the Query of the Hon'ble Commission with regard to common facilities, it is reiterated that Land, Ash Dyke and necessary infrastructure for Railway Siding for which the costs have been claimed in the instant Petition will suffice the requirement of Phase-I only.

However, as and when Phase-II is planned, the railway siding will have to be augmented by building additional infrastructure and incurring additional cost.

Issue 3 (b):

The apportionment of the cost of Land, Barrage, Ash Dyke and Railway Siding alongwith other common facilities if any, be submitted in terms of Regulation 8.3 of MPERC (Terms and Condition for determination of tariff) Regulations, 2012 as amended.

Petitioner's Response:

The Petitioner submits that the expenditure incurred as on COD i.e. 20.05.2015 towards the Project is attached hereto and marked as ***Annexure 57*** *in the form of Certificate dated 27.05.2015 issued by the Statutory Auditor. It is further submitted that the expenditure incurred on common facilities to be used by Unit I and Unit II has also been apportioned in terms of Regulation 8.3 of Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Generation*

*Tariff) Regulations, 2012 (hereinafter "**MPERC Tariff Regulations, 2012**") and certified in the above Statutory Certificate dated 27.05.2015.*

*Further, the details of sale of infirm power are attached hereto and marked as **Annexure 58** and the certified details of start-up fuel expenses are attached hereto and marked as **Annexure 59**.*

4. Issue:

Detailed break-up of the contingency cost alongwith the reasons for increase in this cost from Rs. 201.43 Crores to Rs. 355.06 Crores be submitted.

Petitioner's Response:

The Petitioner submits that the contingency provision of Rs. 201.43 Crore was approved by the Lenders at the time of Financial Closure in the initial Project Cost assuming 4% of the hard cost. However, during the reassessment of the Project cost, as on 30.11.2013, the lenders assessed that the provision of contingency might be exhausted against the following heads:

i. Additional Piling Works

ii. Increase in Project Management Expenses;

iii. Change in civil works cost and price variation of bulk material;

iv. Change in rate of Service tax (from 10.3% to 12.36%)

*The Petitioner further humbly requests the Hon'ble Commission to refer to Page No. 680 - 681 of **Annexure 22** (Project Information Memorandum) which entails the details of the further contingency provision of Rs 153.63 Cr which were based on the following estimations:*

i. Provision of Rs. 60.00 Crore would be payable for transmission and open access charges to PGCIL on account of delayed commissioning of the units. The charges to be payable to PGCIL are contingent in nature and actual cost may vary as per demand from PGCIL;

ii. Provision of Rs. 13.63 Crore had been assessed towards MP entry tax on supplies under BoP-Civil Works and Non-EPC Civil Works. The charges payable towards MP entry tax are contingent in nature and actual cost may vary as per demand;

iii. Provision of Rs. 80.00 Crore to cater to any unforeseen change in further scope of work and corresponding claims from contractors, incentives to contractors / sub-contractors to expedite the physical progress of Project, foreign exchange variations etc.

The Petitioner further humbly submits that the contingency provision of Rs 153.63 Cr is on estimate basis only which may materialize during the progress of the Project.

Notwithstanding the afore-stated, it is respectfully submitted that the estimated completion cost of the Petitioner's Project is well within the Bench Mark capital cost for Green Field coal based power projects as indicated by CERC for 2x600 MW Thermal Project [detailed submission in Additional Affidavit dated 07.02.2015 in Para 3.10].

5. **Issue:**
Detailed break-up of all components under Pre-operative expenses, indicating the reasons for increase in each cost component on revision in capital cost estimate be submitted.

Petitioner's Response:

The Petitioner submits that the Pre-operative expenses as claimed under the Capital cost in the instant Tariff Petition includes the Project Management Expenses (various consultancy charges, employee cost {including O&M team mobilization expenses}, related overheads and other miscellaneous expenses) and Pre-Commissioning Expenses (Construction Power charges, Start-up Power Charges and Start-up Fuel and Consumable expenses). The detailed break up of all components of the Pre-operative Expenses and the reasons for variance is as follows:

Detailed Break-up of Pre-Operative Expenses

S.No.	***Particulars of Expenses***	***Initial Estimate***	***Revised Estimate Rs/ Crs***
A1.	***Project Management Expenses***	***119.00***	***349.80***
(a)	*Establishment Expenses including overheads*	*89.00*	*273.80*
(b)	*Project Insurance*	*0.0*	*15.00*
(c)	*Consultancy Charges*	*30.00*	*61.00*

A2.	***Pre-Commissioning Expenses***	***60.00***	***106.30***
(a)	*Power and Water Charges*	*19.00*	*34.64*
(b)	*Start-up Fuel Expenses*	*41.00*	*71.66*

A1 (a) <u>Establishment expenses including overheads</u>:

It is humbly submitted that the Project execution being on EPC basis, the build-up of the Project execution team was gradual and started peaking from 2012-13 onwards. The estimated employee cost includes required ramp up of O&M team to ensure adequate training and readiness for start-up activities, synchronization and stabilization prior to COD.

The overhead associated with establishment expenses includes Employee Recruitment and Training expenses, Administrative expenses like building Rentals, repair and maintenance expenses, Office guest houses maintenance and rent, horticulture expenses, vehicle running and maintenance expenses, Printing and stationery expenses, books and periodicals, drinking water facilities, CSR expenses, cost of shared resources utilized for the project and miscellaneous consumables.

The Petitioner further submits that the Establishment Expenses (including other overheads) of Rs 89 Crore (mere 1.43% of the initial project cost) was underestimated at the time of financial closure as per industry practices for such a large project. During reassessment of the Project cost, based on the actual cost incurred till November 30, 2013 and the projected ramp up of manpower for O&M team, the Lenders estimated the same cost to be increased by Rs 184.80 Crore till commissioning of the Project.

A1 (b) <u>Project Insurance</u>:

The Petitioner humbly submits that Project Insurance had not been considered in the Initial estimates. However, the revised estimate has considered Rs 15 Crore towards premium payments to insure the Project against any mis-happening/ accident resulting in further delay of start-up activities or commissioning of the Project.

A1(c) <u>Consultancy Charges</u>:

The Petitioner submits that the initial estimates under this head considered Engineering and Technical consultancy only. The Petitioner as an owner of the Project has availed various consultancies under various domains viz.

legal, company formation, commercial due diligence, tariff related advisory, audit and tax advisory apart from Engineering and Technical consultancy. Moreover, the Petitioner has also availed supervision consultancy for Railway Siding works (as mandated by Railways), design consultancy for fish pass arrangement in Barrage (as mandated by NGT later in time) and other scope changes. The Petitioner also incurred a high legal cost on account of NGT case and other unwarranted litigations which were eventually disposed off by the Courts in the Petitioner's favor.

A2 (a) <u>Power and Water Charges:</u>

The Petitioner submits that initially energy charges for construction power and start-up power were estimated at an average cost of Rs 5.00/Kwh for 1 MVA and 50 MVA load, respectively however, these charges also increased on account of applicable temporary connection charges along with fixed charges, etc. as per MPERC Tariff Orders.

A2 (b) <u>Start up Fuel expense:</u>

The Petitioner submits that the earlier projections for coal (as start-up fuel) of GCV 3400 Kcal/Kg were estimated to be availed at Rs 1100/MT and the cost of other start up fuels (Light diesel Oil and Heavy Furnace Oil) were estimated at the then prevailing rates. The revised estimates under this head considered the average price of coal of GCV 4000 Kcal/Kg at Rs 1800/MT. Further, the cost of LDO and HFO has been considered at the prevailing rates in the revised cost estimate. However, it is pertinent to point out that the total cost of Start-up Fuel and Consumables is net of saleable infirm power at the rates as per the CERC Regulations.

Notwithstanding the afore-stated, the Petitioner respectfully submits that the estimated cost under pre-operative expenses is well comparable with other contemporary and similarly sized State, Central and private sector plants as demonstrated below:

Particular	***Unit***	***MBP MPL***	***Lalitpur TPP***	***Nigrie TPP (U-1)***	***SSTPS (U-1)***	***Barh STPS***
Rating	*MW*	*2x600 MW*	*3x660 MW*	*2x660 MW*	*2x600 MW*	*2x660 MW*
Installed Capacity	*MW*	*1200*	*1980*	*660*	*600*	*1320*
Sector	*Sector*	*IPP*	*IPP*	*IPP*	*State*	*Central*
Capital Cost	*Rs Cr*	*8306*	*16005*	*4908.32*	*3508.10*	*8879.96*
Project Management	*Rs Cr*	*349.80*	*420.00*	*172.74*	*261.15*	*713.45*

Expenses						
Pre-commissioning Expenses	*Rs Cr*	*106.30*	*338.82*	*128.23*	*104.44*	*0.00*
Total - Pre-operative Expenses	***Rs Crore***	***456.10***	***758.82***	***300.97***	***365.59***	***713.45***
Pre-operative Expenses as a % of Capital Cost	***%***	***5.49%***	***4.74%***	***6.13%***	***10.42%***	***8.03%***

Source:

1. *The details for LPGCL are as per the Report on the Appraisal of the Capital Cost of 3x660 MW LPGCL and Recommended on the Ceiling Capital Cost filed by UPPCL before the UPERC*
2. *Details in respect of Nigrie TPP are from MPERC Order dated 26.9.2014 in Petition No. 03 of 2014 in the matter of Determination of the provisional tariff for Unit-1 of Nigire TPP, District Singrauli, MP*
3. *Details in respect of Shri Singaji TPP are from MPERC Order dated 10.11.2014 in Petition No. 05 of 2014 in the matter of determination of provisional tariff.*
4. *Details in respect of Barh STPS Stage II are as per the Tariff Petition for FY 2014-19 filed by NTPC before the Hon'ble CERC*

It is submitted that the pre-operative expenses in respect of Nigrie TPP and Shri Singaji TPP have been approved by this Hon'ble Commission vide Order dated 26.9.2014 in Petition No. 03 of 2014 and Order dated 10.11.2014 in Petition No. 05 of 2014, respectively. Accordingly, it is submitted that the pre-operative expenses claimed by the Petitioner are reasonable and within the industry norms.

6. **Issue:**
   It is observed that the financing charges have been increased by four times in the revised cost estimates. The reasons for considering Bank Guarantee charges @ 2% towards Custom and Excise duty payments, which are refundable upon granting Mega power project status be submitted. What will happen with the Bank guarantee after obtaining Mega Power status of the project.

Petitioner's Response:

The Petitioner submits that the Bank Guarantee charges are the charges levied by the issuing banks for providing the Bank Guarantees towards Custom and Excise *duty payments, which shall not be refundable irrespective of the Project being awarded a Mega power project status.*

As regards the Bank Guarantees submitted towards Custom and Excise duty payments, the Petitioner submits that the same will be refunded to the Project on obtaining the Mega Power status as per Mega Power Project Policy.

7. **Issue:**
It needs to be confirmed whether the working capital loan has been taken by the petitioner. If so, the name of the funding agency alongwith the loan agreement including the terms and conditions be submitted.

Petitioner's Response:

The Petitioner submits that the working capital loan has been sanctioned by the lead lender, SBI, as Working capital facility. The Sanction Letter along with the terms and conditions and Working Capital Loan Agreement are attached hereto and marked as ***Annexure 60 (COLLY).***

8. **Issue:**
The information regarding component-wise increase in financing charges be filled-up in the following table and submitted:

Component	Amount initially considered	Amount in revised cost estimate	Reasons

Petitioner's Response:

The Petitioner respectfully submits that the initial estimates of financing charges towards project finance included underwriting, upfront and processing fees only. Subsequently, the financing of the project was led by lenders under prevailing macro-economic factors and in vogue RBI guidelines/directions to ensure smooth and efficient implementation of the Project. As is usual, the project financing structures were determined by the lenders with very little flexibility to the borrower to negotiate the same.

The Petitioner had initially estimated aggregate financing charges of Rs. 65.56 Crore, however, the final financing charges are projected to be Rs. 278.32 Crore of which approximately Rs. 234.37 Crore have already been incurred as on COD. The aforesaid aggregate financing cost of Rs. 65.56 Crore had been *estimated as an aggregate figure, based on inputs and assessment by the technical and financial experts that had prepared and contributed to the DPR. The financial consultants retained by the Project Company were SBI CAPS and the technical consultants retained by the Project Company were Tractebel Engineering, each of whom are globally reputed experts. The Petitioner herein below submits the breakup of the currently estimated financing charges, along with requisite explanations:*

Component	***Amount Initially Considered (Rs Cr)***	***Amount in revised cost estimate (Rs Cr)***	***Reasons***
Underwriting, upfront and processing fee	*65.56*	*65.56*	--
Syndication Fees on Loan	--	*21.38*	*The Petitioner had initially assumed only underwriting, upfront and processing fees and had not contemplated syndication fees. However, in terms of the in-vogue RBI guidelines/directions relating to exposure limits, the lenders mandated loan syndication resulting in additional fee towards this account.* *The aggregate charge towards syndication fees was estimated at approximately 0.5% of the debt requirement. This figure is consistent with the industry practice.*
Foreign and Inland LC Issuance Charges	--	*26.92*	*The Petitioner submits that the estimate of Project cost has considered the issuance charges for opening of foreign and inland letter of credit (LC) for payment under offshore and onshore supplies respectively which were not envisaged in the initial estimate.*
Bank Guarantee Commission / Charges	--	*25.94*	*This provision in the cost is estimated towards BG issuance charges for BG facility against payments of Custom duty / Excise duty, Power evacuation arrangements, Power Purchase/Sale Agreements and Commitment towards Coal Linkages (@ 2% of the BG requirement) which were not envisaged in the initial estimate.*
Buyer's	--	*66.60*	*On account of higher interest loan availed*

Component	Amount Initially Considered (Rs Cr)	Amount in revised cost estimate (Rs Cr)	Reasons
Credit and Bill Discounting Finance Charges			*from the consortium of the lenders, the Petitioner has availed Buyer's Credit as well as Bill discounting facility to reduce the impact of interest burden during the construction tenure of the project. The provision for finance charges for availing the Buyer's credit and bill discounting facility has been considered and included in the estimate.* *The Petitioner submits that no such provision had been envisaged in the initial estimate.*
Cost of Additional Debt Raise	--	*29.06*	*On account of revision of Project Cost, the provision for Financing Charges @ 1.75% of the additional debt of Rs. 1232 Crore plus Working Capital Loan of Rs. 750 Crore @1.00% has been kept in the revised cost estimates.*
Other Finance Charges	--	*17.86*	*Estimated Misc. charges on account of Share Issue expenses, Forex loss on Forward cover, etc. which were not envisaged in the initial estimate.*
Hedging Cost for BCs / FX variation	--	*25.00*	*The provision of Hedging cost for foreign exchange rate variation has been kept in the revised project cost estimate on account of availing the foreign currency loan in the near future before the commissioning of the Project.*
TOTAL	***65.56***	***278.32***	

9. Issue:
It is observed from the details of IDC that the repayment has been considered from September, 2011 whereas, the first repayment is due from March, 2015 in terms of the schedule of Common Loan Agreement. Therefore, the reason for considering repayment from September' 2011 alongwith justification for charging interest to P&L Account prior to CoD of units be also submitted.

Petitioner's Response:

The Petitioner submits that it had availed a short term bridge loan of Rs. 35 Crore in the last quarter of FY 09-10 and Rs. 85 Crore in the first quarter of FY 10-11 from PTC-PFS pending the Financial Closure for the Project for initial fund requirement of the Project which was later on pre-paid in December 2010. The Petitioner henceforth confirms that the aforesaid repayment is not towards the long term loan for the Project. However, the Petitioner further submits that the prepayment penalty paid to the bank had been charged to Profit and Loss Accounts and the same has not been claimed under capital cost for the purpose of tariff.

10. Issue:
The revised statement for interest during construction (IDC) clearly indicating the quarterly funding of the project and IDC alongwith the weighted average rate of interest charged by the lenders be submitted in light of the earlier submissions made by the petitioner in this regard.

Petitioner's Response:

The Petitioner submits that the revised statement for interest during construction clearly indicating the quarterly funding of the project and the IDC along with the weighted average rate of interest charged by the Lenders is attached hereto and marked as ***Annexure 61.***

11. Issue:
The break-up of temporary construction cost of Rs. 217.76 Crores under civil works be submitted.

Petitioner's Response:

The Petitioner humbly submits that the cost provision of Rs 217.76 Crore for temporary construction may be read as the cost provision of Rs 217.67 Crore for Temporary and Site Enabling Works as per Format 5B attached with the instant Petition as ***Annexure P-19 (COLLY).***

The Break-up of the cost estimates under this head is as follows:

i. Site Enabling Works (Rs 181.67 Crore)
  a. Boundary Wall and Fencing works - Rs 17.35 Crore;
  b. External Roads – Rs 11.65 Crore;
  c. Site Grading and Nala Diversion – Rs 147.00 Crore;
  d. External Sewarage, Water Supply and Storm Water Drainage for the Non EPC buildings – Rs 3.67 Crore;
  e. Green Belt – Rs 2.00 Crore.

ii. Temporary Construction/Works (Rs 36.00 Cr)

Temporary infrastructure cost estimates for construction Power (33 KV) and start up power (132 KV) drawn from Chachai Substation (approximately 25 Km from the site).

The details of the components of the temporary construction works aggregating Rs. 36 Crores have already been submitted in Affidavit dated 07.02.2015.

12. Issue:

The weighted average annual rate of interest is not mentioned in any of the interest certificates issued by the State Bank of Patiala, Axis Bank, REC, LIC, PTC India Financial Services Ltd., L&T Infra Finance, PFC, Federal Bank and State Bank of India. Therefore, the weighted average rate of interest in each financial year based on the certificates issued by the aforesaid lenders be submitted.

Petitioner's Response:

The Petitioner submits that the weighted average rate of interest in each financial year based on the certificates issued by the Lenders is attached hereto and marked as ***Annexure 62.***

13. Issue:

The petitioner has considered an annual increase of 8% in the oil prices and 5% increase in the transportation cost whereas, no fuel price escalation is provided during the tariff period as per Regulation 37.2. Further, the petitioner has apportioned Light Diesel Oil (hereinafter 'LCO') and Heavy Furnace Oil (hereinafter 'HFO') consumption in the ratio of 54:46. The aforesaid contention needs to be explained in details alongwith supporting documents.

Petitioner's Response:

The Petitioner respectfully submits that in terms of Clause 38.2 of the Tariff Regulations, the Petitioner would be entitled to a secondary fuel price adjustment at the end of each year of the tariff period. However, there is agreeably a time lag between the actual monthly billing and the year-end adjustment which would lead to working capital issues to the Petitioner. With a view to mitigate such time-lags and avoid working capital issues, the Petitioner had considered a marginal escalation of 8% in oil prices and 5% increase in the transportation cost.

The Petitioner respectfully submits that LDO would be used as start-up fuel only and HFO would be used as oil support for flame stabilization. As regards the *proportion of secondary fuel oils, the Hon'ble Commission may apply the applicable tariff regulations.*

14. Issue:

With regard to the weighted average rate of secondary fuel oil considered for working capital purpose, the petitioner is required to file its response in light of the provisions under Regulation 37.1(ii) of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012 as amended.

Petitioner's Response:

The Petitioner respectfully submits that as per the provisions of Clause 37.1 (ii) of the Tariff Regulations, for working capital purposes, the cost of fuel oil stock shall be considered for the main secondary fuel, in cases where more than one secondary fuel oil is being used.

15. Issue:

With regard to the GCV and rate of coal, the latest landed cost of coal and GCV of coal "As fired basis" be submitted. Supporting documents like bills, laboratory reports etc. be also filed by the petitioner.

The Petitioner submits that presently Coal is being supplied by SECL, a subsidiary of Coal India Limited (CIL). Copy of the Coal Analysis report on 'Fired Basis' is attached hereto and marked as ***Annexure 63.*** *In regard to the latest landed cost of coal, relevant invoices for cost of coal, railway freight, Inland transportation charges and CHA charges are attached hereto and marked as* ***Annexure 64 (COLLY).***

16. Issue:

It is informed by the petitioner that it has signed a power purchase agreement with the Discoms of Uttar Pradesh through PTC Ltd under Case I bidding guidelines for supply of 361 MW power. The tariff discovered through the Case I bidding and adopted by the State Commission for the aforesaid power may be informed.

Petitioner's Response:

The Petitioner respectfully submits that the levellised tariff is Rs. 5.73 per kWh in the Case-1 bid for which the Petitioner has signed the Power Purchase Agreement with Uttar Pradesh Discoms on 18.01.2014. The afore-stated tariff was adopted by the Hon'ble UPERC by an Order dated 24.06.2014 in Petition No. 911 of 2013.

17. Issue:

The following details/ documents be submitted on declaration of the unit(s) under commercial operation:

(i) The certificate of concerned Load Despatch Centre in favor of synchronization and CoD of Unit (s) upon declaration under commercial operation.

(ii) The actual expenditure incurred upto CoD of the unit(s) with break-up of all cost components and funding details duly reconciled with Annual Audited Accounts and certified by the statutory auditor be submitted after CoD of the unit(s).

(iii) The details of works completed as on CoD of Unit No. 1 and 2 and the balance works to be completed viz-a-viz the original scope of work be submitted upon CoD of the units.

(iv) With regard to the liquidated damages (LD) recovered/ to be recovered from various contractors/ vendors in different packages, the following information be submitted on declaration of the unit(s) under commercial operation:

Name of the contractor/ supplier	Scope of work	Scheduled dated of completion	Actual date of completion	Provision for penalty or LD	Estimated recovery of penalty or LD recovered/ envisaged

Petitioner's Response:

Copies of the certificate of commissioning issued by the concerned Load Dispatch Centre of Unit I of the Project and of the Communication dated 24.03.2015 to the Hon'ble Commission intimating synchronization of Unit I on 19.03.2015 is attached herein above as ***Annexure 47 (COLLY)****. Further, the Petitioner has successfully completed the Commissioning Test in terms of PPA on 15.05.2015 and achieved CoD of Unit-1 at 00:00 Hrs on 20th May 2015***.** *Copy of the Performance Test Certificate dated 16.03.2015 issued by the Independent Engineer, Desein Private Limited, and Witness Report of the designated representative of Respondent No.1* *are attached herein above as **Annexure 48 (COLLY).** Further, the Western Regional Power Committee has confirmed the COD of Unit-I w.e.f. 00:00 hrs of 20/05/2015 and copy of the Communication dated 19.05.2015 of WRPC is attached herein above as **Annexure 49**.*

<u>Issue 17 (ii):</u>

*The certificate for actual expenditure incurred up to COD duly certified by the Statutory Auditor is attached hereinabove as **Annexure 57.** Further, it is respectfully submitted that the Annual audited accounts for FY 2013-14 have been submitted vide Affidavit dated 04.02.2015 (Page 3251 to 3281) as **Annexure 33**. As per the FY 2013-14 audited accounts, the details are as below:*

Audited figures as on 31.03.2014

Particulars	***Amount as on 31.3.14 (Rs.)***
Fixed Assets	
- Tangible Assets	*1,20,22,00,999*
- Intangible Assets	*2,48,03,475*
Capital Work in Progress	*50,12,99,16,303*
Cash Expenditure	*48,68,61,43,370*

The annual audited accounts of FY 2014-15 shall be available by September, 2015 and further, annual audited accounts of FY 2015-16 shall be available by September, 2016.

<u>Issue. 17 (iii)</u>

*The details of works completed as on COD of Unit No. 1 and 2 and the balance works to be completed viz-a-viz the original scope of work are attached hereto and marked as **Annexure 65**.*

<u>Issue 17 (iv):</u>

The Petitioner respectfully submits that the liquidated damages recovered/ to be recovered in different packages would be known at the time of contract settlement once the Project is commissioned and cut-off date is achieved.

Annexure-“B”

Comments offered by MPPMCL, Respondent No. 1 and the Petitioner’s response on the same

MPPMCL Comments:

1. That, the Petitioner has filed this petition under Section 62 and Section 86(1)(a) of the Electricity Act 2003 read with MPERC (Terms and Conditions of Determination of Tariff) Regulations, 2012 (herein after referred to as *The Tariff Regulations 2012*), praying for determination of Provisional Tariff of its 2 x 600 MW, Coal based Thermal Power Plant in District : Anuppur, M.P. for the period commencing from 30th November, 2014 for Phase I (Unit 1 and Unit 2).

2. That the Petitioner, inter-alia, has made following prayers before this Hon’ble Commission :

> “ ***PRAYER***
>
> **……**
>
> ***a. Pending determination of Generation Tariff of the Project as required under the Non-Concessional PPA dated 05-01-2011, determine the Provisional Tariff of the Project/ Unit(s);***
>
> ***b. Allow recovery of other fuel related charges as prayed in Paras XXII, XXIII and XXIV of this Petition;***
>
> ***c. Allow the recovery of the filing fee as and when paid to the Ld. Commission and also the publication expenses from the beneficiaries;***
>
> ***d. ….***
>
> ***…..”***

3. That, the Respondent herein opposes and denies the claims which are beyond those permissible under the Tariff Regulations 2012. The Para-wise comments are offered for kind consideration of this Hon’ble Commission.

Petitioner’s Response:

The contents of Para 1 to 3 of the Reply do not merit a reply.

MPPMCL Comments:

4. **That, Para 1 (I) to 4 (IV) at Page No. 2 to 12 in Volume I of Petition, are generally averments to facts, therefore, do not require specific comments beside the fact that Unit-1 of the plant had not achieved COD till 31st January, 2015.**

Petitioner's Response:

As regards the contents of Para 4 of the Reply, the Petitioner submits that Unit-1 of the Project is on the verge of commissioning and is expected to be commissioned by March 2015 as per the Petitioner's reasonable assessment. The Petitioner submits that the expected date of commissioning has been brought on record and in the knowledge of the Ld. Commission vide Affidavit dated 05.02.2015 and copy of the same has also been submitted to Respondent No.1

MPPMCL Comments:

5. **That, in Para 5 (V) at Page No. 12 in Volume I of Petition, the Petitioner has given overview of Project and Cost Incurred. The total capital cost is now shown as Rs. 8,306.03 Cr., which is substantially higher than the originally estimated figure of Rs. 6,240.12 Cr., i.e., about 33% higher. It is humbly prayed that suitable prudence check be applied before allowing any increase in Project Cost. It is also prayed that actual amount of Project Cost allowed be considered for normative/ actual loan for the purpose of calculation of Interest During Construction (IDC), Financing and other charges up to COD.**

Petitioner's Response:

As regards the contents of Para 5 of the Reply, the Petitioner submits it has, in Para 3.6 of Affidavit dated 05.02.2015, made detailed submissions in relation to the total capital cost of the Project as well as the basis for the enhanced capital cost. The Petitioner reiterates the contents of Para 3.6 of Affidavit dated 05.02.2015 and other submissions relating to total capital cost therein, not being repeated herein for the sake of brevity.

MPPTCL Comments:

6. **That, in Para 6 (VI) at Page No. 13 in Volume I of Petition, the Petitioner has given details of Financing Arrangement for the Project. The "Weighted Average" rate of interest is shown as 14.21% per annum for FY 2014-15 and 14.29% per annum in FY 2015-16. It may kindly be seen that this is a very high interest rate for a Thermal Power Project and the Petitioner may kindly be directed to furnish details of efforts made on their part for getting the Project Loan "Re-financed" to bring down the interest burden in terms of Regulation 23.7 of the Tariff Regulation 2012.**

Petitioner's Response:

As regards the contents of Para 6 of the Reply, the Petitioner submits that it has, in Para 3.20 of Affidavit dated 05.02.2015, made detailed submissions in relation to the weighted average rate of interest filed by the Petitioner. The Petitioner reiterates the contents of Para 3.20 of the Affidavit dated 05.02.2015, not being repeated herein for the sake of brevity. The Petitioner further submits that, as of now, there are no plans of re-financing the debt. The Petitioner submits that its Project is being financed by a consortium of bankers, State Bank of India and Axis Bank being the Lead Bankers. State Bank of India and Axis Bank are the leading banks of the country and offer one of the best rates available in the market.

MPPMCL Comments:

7. That, in Para 7 (VII) and Para 8 (VIII) at Page No. 13 to 17 in Volume I of Petition, the Petitioner has given overview of Statutory and Non-Statutory Clearances and contracting/ tendering process adopted. These appear to be averments of facts and do not require specific comments.

8. That, in Para 9 (IX) at Page No. 17 to 18 in Volume I of Petition, the Petitioner has given particulars of Plant Characteristics. Except for the Unit of GCV of Design Fuel erroneously indicated as "KCal/KWh" instead of "Kcal/Kg", other information appears to be averment of facts and does not require specific comments.

9. That, in Para 10 (X) to 12 (XII) at Page No. 18 to 20 in Volume I of Petition, the Petitioner has given details of Fuel Supply and Water arrangements and arrangements for Evacuation of Power for the Project which appear to be averments of facts and does not require specific comments.

Petitioner's Response:

The contents of Paras 7 to 9 do not merit a reply.

MPPMCL Comments:

10. That, in Para 13 (XIII) at Page No. 20 to 21 in Volume I of Petition, the Petitioner has given calculations of Return on Equity for the Project. As per the Regulation 22 of the Tariff Regulation 2012, the Return of Equity is to be computed on the "paid up" equity capital, which is Rs. 2,007.278 Cr. as on 30-11-2014 (shown at Page No. 3097/ Volume XIII in Annexure-30). ROE calculated on this Equity Base will be Rs.471.32 Cr.

<u>Petitioner's Response</u>:

As regards the contents of Para 10 of the Reply, the Petitioner respectfully submits that the contention of the Respondent No. 1 is contrary to Regulation 15 of the Tariff Regulations, 2012. The Petitioner submits that the instant Petition has been filed for determination of provisional tariff of the Project / Units in anticipation of the COD. For the purpose of computation of Return on Equity (ROE), the Petitioner would be submitting the details of actual equity infused up to the COD once the Unit(s) gets commissioned.

<u>MPPMCL Comments:</u>

11. That, in Para 14 (XIV) at Page No. 21 to 22 in Volume I of Petition, the Petitioner has given Weighted Average Rate of Interest claimed to be applicable for calculation of Interest and Finance Charges on Loan Capital. The calculation of Weighted Average Rate of Interest is given in Form 13 and annexed at Page No. 432 (Volume-II), whereas calculations of Interest on Loan is given in Form No. 13-A at Page No. 434 (Volume-II). The calculation of the Interest appears to be on the basis of Weighted Average Rate of Interest on "Normative Loan", whereas as per the Regulation 23.5 of the Tariff Regulation 2012, *"the rate of Interest shall be the weighted average rate of interest calculated on the basis of <u>actual loan portfolio</u> at the beginning of each year…"* . Therefore, it is prayed that the Interest on Loan be allowed in accordance with the provision of the Regulation.

<u>Petitioner's Response:</u>

As regards the contents of Para 11 of the Reply, the Petitioner respectfully submits that the contention of the Respondent No. 1 is contrary to Regulation 15.3 and 15.4 of the Tariff Regulations, 2012 which provides for provisional tariff subject to adjustment after the final tariff. The Petitioner respectfully submits that the instant Petition has been filed for determination of provisional tariff of the Project / Units in anticipation of the COD.

<u>MPPMCL Comments:</u>

12. That, in Para 15 (XV) at Page No. 22 in Volume I of Petition, the Petitioner has given the basis and method of computation of Depreciation. It is humbly submitted that as per Regulation 24.1 (g) of the Tariff Regulation 2012, *"depreciation shall be chargeable <u>from the first year of the Commercial Operation</u> of the asset……".* Meaning thereby, depreciation is not chargeable prior to COD. Besides, clear value base of assets is currently not available, which will only be admitted by the Hon'ble Commission, after audited

accounts are filed by the Petitioner. Therefore, it is humbly submitted that there is no occasion to claim depreciation in the present Petition for determination of Provisional Tariff, which is filed prior to COD and the same may kindly be disallowed.

Petitioner's Response:

As regards the contents of Para 12 of the Reply, the Petitioner respectfully submits that the instant Petition has been filed for determination of provisional tariff of the Project/ Unit(s) in anticipation of the COD based on the provisions of the Tariff Regulations, 2012. However, the tariff will be charged only from the COD.

MPPMCL Comments:

13. That, in Para 16 (XVI) at Page No. 23 to 24 in Volume I of Petition, the Petitioner has given computation of O & M expenses on the basis of normative figures provided in the Tariff Regulations 2012. It is humbly submitted that the Petitioner has simply sought to claim amounts of Rs. 167.76 Cr for FY 2014-15 and Rs. 181.08 Cr for FY 2015-16 on the basis of Per MW Normative O & M charges on entire capacity of 1200 MW and for the entire Financial Years, which is obviously incorrect as none of the units have achieved COD as yet. Therefore, the same deserves to be disallowed. O&M charges, for only that part of the generation capacity which comes under operation after achieving COD, may be allowed for remaining part of the Financial Year, and that too may only be considered on prorated basis.

Petitioner's Response:

As regards the contents of Para 13 of the Reply, the Petitioner respectfully submits that the instant Petition has been filed for determination of provisional tariff of the Project/ Unit(s) in anticipation of the COD based on the provisions of the Tariff Regulations, 2012. However, the tariff will be charged only from the COD. The Petitioner in the instant Petition and the Tariff Forms has depicted the annual O&M expenses allowed by the Tariff Regulations and has then pro-rated the same based on the Scheduled COD of the units.

MPPMCL Comment's:

14. That, in Para 17 (XVII) at Page No. 25 in Volume I of Petition, the Petitioner has given the basis for calculation of Interest on Working Capital and the details of its calculations is given in Form 13-B (Annexure-P-20) at Page No. 435 (Volume-II) on the basis of normative figures provided in the Tariff Regulations 2012. It is humbly submitted that the Petitioner appears to have

considered normative expenses under various heads for FY 2014-15 as if the entire capacity of 1200 MW has started generating (achieved COD) at the beginning of FY 2014-15, which is incorrect. Even the first Unit of 600 MW is yet to achieve COD. Therefore, the interest on working capital computed on erroneous basis deserves to be disallowed. Similarly, computation for Interest on Working Capital for FY 2015-16 also needs to be considered on prorata basis as per Tariff Regulation 2012.

Petitioner's Response:

As regards the contents of Para 14 of the Reply, the Petitioner respectfully submits that the instant Petition has been filed for determination of provisional tariff of the Project / Units in anticipation of the COD based on the provisions of the Tariff Regulations, 2012 and the tariff will be charged only from the COD. The Petitioner in the Tariff Petition and the Tariff Forms has depicted the annual capacity charges including interest on working capital allowed by the Tariff Regulations and has then pro-rated the same based on the Scheduled COD of the units.

MPPMCL Comments:

15. That, in Para 18 (XVIII) at Page No. 25 to 26 in Volume I of Petition, the Petitioner has given the basis for calculation of Cost of Secondary Fuel Oil. The Cost of Oil is a component of Energy Charges calculated on Page No 413. It is humbly submitted that the Petitioner has considered full capacity of 1200 MW under operation for FY 2014-15, which is incorrect. Even the first Unit of 600 MW is yet to achieve COD. As the basis for estimation of Secondary Fuel Oil is erroneous, the cost of oil computed on erroneous basis deserves to be disallowed. Similarly, computation for Cost of Secondary Oil for FY 2015-16 also needs to be considered on prorata basis as per Tariff Regulation 2012.

Petitioner's Response:

As regards the contents of Para 15 of the Reply, the Petitioner respectfully submits that the Cost of Secondary Fuel Oil is a part of annual capacity charges as per the framework of the Tariff Regulations. Further, with respect to inclusion of oil cost as part of energy charges, the Petitioner submits that only coal cost has been considered for calculating the energy charges and the oil cost presented is for indicative purpose only. It is further reiterated that the instant Petition has been filed for determination of provisional tariff of the Project / Units in anticipation of the COD based on the provisions of the Tariff Regulations, 2012 and the tariff will be charged only from the COD. The Petitioner in the Tariff Petition and the Tariff Forms has depicted the annual capacity charges including cost of secondary fuel oil allowed by *the Tariff Regulations and has then pro-rated the same based on the Scheduled COD of the units.*

MPPMCL Comments:

16. That, in Para 19 (XIX) at Page Nos. 26 to 28 in Volume I of Petition, the Petitioner has quoted the relevant provisions of the Tariff Regulations 2012 and also the calculations in respect of allowable Gross Station Heat Rate (GSHR). It may kindly be noted that on the basis of various design parameters, the allowable GSHR works out to 2407 Kcal/KWh instead of 2410 Kcal/KWh.

Petitioner's Response:

As regards the contents of Para 16 of the Reply, the Petitioner respectfully submits that it has provided the calculations of the allowable Gross Station Heat Rate to the Ld. Commission in workable excel file. The extract of the same is as follows:

S No	***Technical Parameters***	***Unit***	***Value***
A	*Design Turbine Cycle Heat Rate*	*kCal/kWh*	*1,945.70*
B	*Design Boiler Efficiency*	*%*	*86.10%*
C	***Design Heat Rate***	***kCal/kWh***	***2,260.00***
D	*Allowable Max Turbine Cycle Heat Rate as per Regulation 35.2 of MPERC Tariff Regulation, 2012*	*kCal/kWh*	*1,950.00*
E	*Min. Allowable Boiler Efficiency as per Regulation 35.2 of MPERC Tariff Regulations, 2012*	*%*	*85.00%*
F	***Allowable Heat Rate***	***kCal/kWh***	***2,294.12***

MPPMCL Comments:

17. That, in Para 20 (XX) at Page Nos. 28 to 30 in Volume I of Petition, the Petitioner has given the basis of calculation of Energy Charges along with the relevant provisions of the Tariff Regulation 2012. It is humbly submitted that apart from change in GSHR (2407 KCal/KWh in place of 2410 KCal/KWh claimed), the Weighted Average Landed Price of Primary Fuel (LPPF) (shown as Rs. 2.885 /Kg) is also not correct, as elaborated in the following Paras. Therefore, it is humbly submitted that the Energy Charges claimed by the Petitioner for FY 2014-15 as Rs. 1.6907 per KWh and as Rs. 1.7921 per KWh deserve to be disallowed.

18. That, in Annexure P-18 at Page Nos. 405 to 413 in Volume II of Petition, the Petitioner has given the details of computation of Energy Charges along with "*rationale considered towards fuel mix, prices and calorific values of fuel*".

a. **Kind attention of the Hon'ble Commission is invited to Page No. 408, wherein the assumptions in respect of Domestic and Imported Coal are considered. It is not clear as to why the Petitioner is considering a GCV at 4000 Kcal/Kg for Domestic Coal which is lower than that provided in FSA (in range of 4,300 to 4,600 Kcal/ Kg) and a very high Calorific value (5,900 Kcal/Kg) for Imported coal.**

b. **Both assumptions are clearly erroneous and would have serious inflationary impact on Energy Charges. The reasonable assumption for GCV of Domestic Coal should be a mean of the range of GCV agreed in FSA, i.e., about 4,450 Kcal/Kg. Also the price of 5900 Kcal/Kg GCV coal is very high (base price at $ 64.01 (or Rs. 3,840.80) per Tonne, resulting in Net Landed Price of Rs. 7,861.19 per Tonne).**

c. **The Hon'ble Commission is also requested to peruse Page No. 664 of Volume-IV (Annexure-22 – *Project Information Memorandum*). In Table No. - 28, the Delivered Cost of Imported Coal is worked out on the basis of Imported Coal having GCV of 4,300 Kcal/Kg (matching with lower of the range of GCV of FSA or Linkage coal from domestic mines) resulting in Final Landed Cost of Rs. 5,248 per Tonne only, which may be more logical.**

d. **Similarly, kind attention of the Hon'ble Commission is invited to Page No. 411, wherein under heading "Fuel Sourcing and Price", the % sourcing from Domestic Sources and Imported Sources is shown to be 80% and 20% respectively. It is humbly submitted that this assumption is not in line with terms of FSA. It may kindly be noted that under FSA, maximum quantity envisaged through import is 15% in FY 2014-15, 13% for FY 2015-16 and only 5% for 2016-17. The Hon'ble Commission is requested to kindly refer amended Clause 4.3.1 of FSA (as amended on 20-03-2014) on Page 378 in Volume-II.**

Considering all the above factors, the "Weighted Average Price of Landed Price of Coal (LPPF) is going to be significantly lower than Rs. 2.885 per Kg and the Weighted average GCV would be much higher. As a result, the Energy Charge Rates would be much lower than Rs. 1.6907 per KWh for FY 2014-15 and Rs 1.7921 per KWh for FY 2015-16 shown on Page No. 31 by the Petitioner.

<u>Petitioner's Response:</u>

As regards the contents of Paras 17 and 18 of the Reply, the Petitioner respectfully submits that it has, in Para 3.26 of Affidavit dated 05.02.2015, made detailed submissions in relation to Coal Cost. The Petitioner reiterates the contents of Para 3.26 of Affidavit dated 05.02.2015, not being repeated herein for the sake of brevity.

<u>MPPMCL Comments:</u>

19. That, in Para 21 (XXI) at Page Nos. 30 to 31 in Volume I of Petition, the Petitioner has given the Tariff Summary in tabulated form. It is humbly submitted that owing to the objections raised in the foregoing Paras, most of the elements of the Annual Fixed Cost for FY 2014-15 and 2015-16 will change. Similarly, the Variable Charges will also come down significantly. Therefore, it is humbly prayed that the Provisional Tariff be allowed only after considering all the objections/ comments of the humble Respondent herein and in terms of Regulation 15.4 of the Tariff Regulation 2012.

<u>Petitioner's Response:</u>

As regards the contents of Para 19 of the Reply, the Petitioner denied that the elements of Annual Fixed Cost for FY 2014-2015 will change on account of the submissions made by Respondent No.1. The Petitioner submits that the instant Petition has been filed for determination of Provisional Tariff and the requisite details for determination of the same have been captured in the Petition and the subsequent Affidavits filed by the Petitioner. The Petitioner further reiterates the contents of the foregoing para of this Rejoinder.

<u>MPPMCL Comments:</u>

20. That, in Para 22 (XXII) and Para 23 (XXIII) at Page Nos. 31 to 38 in Volume I of Petition, the Petitioner, under the headings "Other Fuel Related Charges/ Variable Charges" and "Statutory Charges", has sought to put forth certain rationale for allowing the said charges on various grounds urged therein. In this context the Respondent most respectfully submits that the Tariff determination by this Hon'ble Commission is governed by the provisions in Tariff Regulation 2012, which envisage and comprehensively cover all the expenses/ costs and also allow reasonable return to the Generator. Therefore, this part of prayer of the Petitioner is strongly opposed as the Petitioner cannot be allowed to seek beyond what is permissible under pre notified Final Regulations referring to the Tariff Regulations notified by other State Commissions etc.

<u>Petitioner's Response:</u>

As regards the contents of Para 20 of the Reply, the Petitioner respectfully submits that it has provided detailed rationale for claiming Other Variable Charges / Other Fuel Related charges and Statutory Charges and as such, expenses are not covered under the normative annual capacity charges / energy charges allowed by the Tariff Regulations, 2012. Hence, such expenses have been claimed which may be applicable from time to time at actual. The pass through of such expenses/ charges would be consistent with the provisions of the Regulations, past precedents, the inherent powers vested with the Ld. Commission under Regulation 61(1) of the Tariff Regulations, 2012.

<u>MPPMCL Comments:</u>

21. That, in Para 24 (XXIV) at Page Nos. 38 in Volume I of Petition, the Petitioner has prayed for allowing Lease Rent for Government Land under Main Plant area. It is most humbly submitted that the said Prayer falls under the purview of Regulation 25 of the Tariff Regulations 2012, which provides that "*Lease Charges for assets taken on lease by a Generating Company shall be considered as per lease agreement <u>provided they are considered reasonable by the Commission</u>*."

<u>Petitioner's Response:</u>

As regards the contents of Para 21 of the Reply, the Petitioner respectfully submits that the expenses claimed towards Lease Rentals are genuine and reasonable expenses. Such expenses are allowable in terms of Regulation 25 of the Tariff Regulations, 2012 and ought to be allowed to the Petitioner.

<u>MPPMCL Comments:</u>

22. That, Unit 1 and Unit 2 were scheduled to be commissioned in 31st October 2014 and 31st January 2015 respectively (as per Revised SCOD). However, delay in commissioning has now been admitted in the submissions made herein. Therefore, the Petitioner may kindly be directed to give latest update on the Commissioning schedule of both the units.

<u>Petitioner's Response:</u>

As regards the contents of Paras 22 of the Reply, the Petitioner reiterates the contents of Para 3.2 above.