MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

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

Petition No.13 of 2015

PRESENT:

Dr. Dev Raj Birdi, Chairman

A. B. Bajpai, Member

Alok Gupta, Member

IN THE MATTER OF:

Approval of final Generation Tariff for 2X250MW Ext. Unit No. 10 and 11 of Satpura Thermal Power Station, Sarni PH-IV, from CoD of Unit No. 10 to 31.03.2016.

M.P. Power Generating Company Ltd., Jabalpur : PETITIONER

Vs.

1. **M. P. Power Management Company Ltd., Jabalpur**
2. **M. P. Power Transmission Company Ltd., Jabalpur**

RESPONDENTS

ORDER

(Passed on this day of 7th January, 2016)

1. Madhya Pradesh Power Generating Company Ltd. (hereinafter called "the petitioner" or "MPPGCL") filed the subject petition on 16th April, 2015, for approval of final generation tariff for 2x250 MW, STPS, Sarni Extn. Units No. 10 & 11 w.e.f CoD of Unit No. 10 to 31/03/2016. The petition has been registered as petition No.13/2015.

2. The subject petition has been filed under Section 62 and 86 (1) (a) of the Electricity Act, 2003 and it is based on MPERC (Terms and Conditions for determination of Generation Tariff) Regulation, 2012 {RG-26 (II) of 2012} (hereinafter referred to as "the Regulations, 2012"). The aforesaid Regulations are based on multiyear tariff principles prescribing norms of operation for the control period from FY 2013-14 to FY 2015-16. Madhya Pradesh Electricity Regulatory Commission (hereinafter called "the Commission) has examined the subject petition based on the principles and methodology specified in the Regulations, 2012.

3. The petitioner submitted that M.P. Power Management Co. Ltd. (MPPMCL) and the three DISCOMS of MP have entered into a management and corporate functions agreement on 05/06/2012, whereby the three DISCOMS engaged MPPMCL to represent them in all the proceedings relating to power procurement and tariff petitions filed or to be defended before CERC, MPERC and other regulatory authorities, Appellate Tribunal, High Courts, Supreme Court and CEA etc. Therefore, the three DISCOMS were not made respondents separately in this petition

4. Satpura Thermal Power Station (STPS) is located in Betul, District of Madhya Pradesh. Earlier, STPS complex had nine Units in three power houses (PH-I, PH-II and PH-III) with installed capacity of 1142.5 MW. Units of PH-I (5X62.5MW) were decided for closure. The petitioner stated that in view of power crisis prevailing in the State, it was decided by GoMP to install these two additional Units of 250 or 210 MW each at STPS Sarni premises as extension Units No. 10 & 11, which were identified by CEA for implementation during 11th Plan period. These Units were decided for installation adjacent to the existing nine Units.

Background of the petition:

5. Power Purchase Agreement was executed between petitioner and M.P. Power Trading Company Ltd. (now M.P. Power Management Company Ltd.) for purchase of entire power (100%) generated from this project (2x250 MW) for the period of 25-years from the date of commercial operation of last unit of the station. In para 7.1 of the PPA, it is mentioned that the tariff payable shall be as determined by the State Commission.

6. A Petition No. 37/2012 was filed by Respondent No. 1 (M.P. Power Management Company Ltd.) for approval of the aforesaid PPA. Vide Order dated 30/10/2013, the Commission accorded approval to the PPA subject to incorporation of the addendum to Clause 7.6.2 of the PPA as mutually agreed by the Respondent No. 1 and the petitioner M.P. Power Generating Co. Ltd., Jabalpur.

7. Respective dates of synchronization and dates of Commercial Operation of 2X250 MW STPS Extn. Unit No. 10 and 11 are as given below:-

Table No. 1 -: Dates of Synchronization and COD

Sr. No.	Unit No.	Date of First Synchronization	Date of Commercial Operation (COD)
1	STPS Extn. Unit No. 10	22/02/2013	18/08/2013
2	STPS Extn. Unit No. 11	02/10/2013	16/03/2014

8. The petitioner had filed a Petition (No. 11/2013) on 25/02/2013 for approval of Provisional Generation Tariff of STPS Extn. Units No. 10 & 11, Sarni, with effect from the anticipated COD of Unit No. 10 to 31/03/2016 under MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2012.

9. The extension Unit No. 10 of STPS, Sarni was synchronized on 22nd February, 2013 and declared under commercial operation on 18th August, 2013. Vide Order dated 8th October, 2013, the Commission approved the provisional tariff for STPS Extn. Unit No. 10 w.e.f. its COD (i.e. 18/08/2013) to 31/03/2016, based on the actual capital expenditure as on CoD of Unit No. 10 duly certified by the Chartered Accountant. In para 30 of the aforesaid order, it was mentioned that the provisional tariff of Unit No. 11 shall be determined only after CoD of this unit and availability of details regarding infirm power from SLDC & actual capital expenditure certificate from Chartered Accountant for this unit. In its aforesaid tariff order, the Commission

allowed the following Annual Capacity (fixed) Charges and Energy Charges :-

Table No. 2 -: Annual Capacity (fixed) Charges and Energy Charges provisionally allowed.

Sr. No.	Particular	Unit	FY 2013-14	FY 2014-15	FY 2015-16
1	Return on equity	₹Crores	47.06	47.06	47.06
2	Interest charges on loan	₹Crores	134.20	124.88	115.57
3	Depreciation	₹Crores	71.66	71.66	71.66
4	O & M expenses	₹Crores	46.05	49.75	53.65
5	Cost of secondary fuel oil	₹Crores	9.75	9.75	9.75
6	Interest on working capital	₹Crores	22.57	22.59	22.61
7	**Annual capacity charges**	**₹Crores**	**331.29**	**325.69**	**320.30**
8	AFC for 226 days for FY2013-14	₹Crores	**205.13**	**325.69**	**320.30**
9	95% of the above fixed cost allowed to be recovered	₹Crores	**194.87**	**309.41**	**304.29**
Energy (variable) Charges		**₹/kWh**	**1.784**	**1.784**	**1.784**

10. In the aforesaid tariff order, the petitioner was directed to file the final tariff petition for Unit-10 at the earliest along with the Audited Accounts as on CoD and all other required details/ documents. The petitioner was also asked to file the Unit-wise break-up of the figures of capital cost in the audited accounts along with the final tariff petition in support of its claims.

11. The unit No. 11 of STPS, Sarni was synchronized on 2nd October, 2013 and declared under commercial operation on 16th March, 2014. On achieving the COD of 250 MW STPS Extn. Unit No. 11, the petitioner filed an Interlocutory Application (IA No. 1 in Petition No. 11/2013) on 18/06/2014 with the Commission wherein, it was prayed to permit provisional billing for the power generated from 250 MW STPS Extn. Unit No. 11, Sarni and supplied to DISCOMS (through MPPMCL) at the same tariff provisionally approved by the Commission for Unit No. 10.

12. Regarding the actual capital expenditure certificate from Chartered Accountant, the petitioner in the aforesaid IA mentioned that *"MPPGCL is in the process of getting the desired details certified by a CA Firm. However, the certification process is expected to take some more time because the Model Code of Conduct was in force during the General Elections 2013 & 2014. Thus, the appointment of CA Firm by MPPGCL got delayed; as such the certification process in respect of this Unit got delayed, which is still expected to take some more time*."

13. The petitioner also submitted that on account of its inability in submission of CA certificate and reconciliation of data, the petitioner was not in a position to bill MPPMCL for the energy being supplied by the petitioner to the Respondent No. 1 from the aforesaid 250 MW STPS Extn. Unit No. 11, Sarni w.e.f. its COD. Therefore, the petitioner requested the Commission to permit provisional billing by it for the power generated & supplied from this unit.

14. Considering the constraints put forth by the petitioner for delay in submission of CA certificate and other essential details/documents in the main petition, vide order dated 20/06/2014, the Commission allowed the petitioner to raise bills on the Respondent No. 1 (MPPMCL) on provisional basis from the COD of STPS Extn. Unit No.11, till disposal of the main Petition No. P-11/2013 subject to retrospective adjustments. The petitioner was directed to ensure submission of all details and documents at the earliest for determination of tariff in the main petition.

15. As the Books of Accounts of MPPGCL for the Financial Year 2013-2014 have since been finalized and duly audited by Statutory Auditors followed by supplementary audits by the CAG therefore, the petitioner filed the subject petition for approval of final generation tariff for 2X250 MW, STPS Extn. Units No. 10 & 11, Sarni, for the control period FY2013-14 to FY2015-16, w.e.f. COD of Unit No. 10 (18/08/2013) to 31/03/2016 instead of seeking approval for provisional tariff for Unit No. 11.

16. In the subject petition, the petitioner broadly submitted the following:

   i. *"MPPGCL has filed this petition for approval of final generation tariff of 2X250 MW, STPS Extension Units No. 10 & 11, w.e.f. COD of Unit No. 10 up to 31/03/2016 based on the figures in the audited books of accounts of MPPGCL for FY2013-14. Figures for FY2014-15 submitted in the petition are on provisional basis and those for FY2015-16 are on projected basis. True-up for the same shall be filed on completion of the balance works of the project and on finalization of accounts for FY2014-15 and FY2015-16, respectively.*

   ii. *The instant Petition is in continuation to the Petition No. 11/2013 filed for determination of provisional tariff. Most of the facts regarding the subject project, along with the necessary supporting documents, have already been submitted before the Commission in the Petition No. 11/2013 and in subsequent additional submissions made vide MPPGCL's submissions dated 14/06/2013, 30/08/2013 and 13/09/2013. However, to make the instant Petition a self sufficient document all the necessary information and supporting* *documents, even though already submitted in the Provisional tariff petition, are being resubmitted herewith as detailed in the relevant chapters of the Petition.*

iii. *The latest revised and approved project cost estimate for STPS Extn. Units No. 10 & 11, Sarni is ₹ 3514 Crores which was approved by the Board of Directors of MPPGCL vide resolution passed in its 72nd meeting held on 04/01/2014 at Bhopal and then by the Govt of M.P. vide letter dated 23/01/2015.*

iv. *Petitioner has considered the figures for Expenditure Capitalized as on the respective dates, as indicated in the petition, for determining the weighted average depreciation rate and calculation of yearly depreciation amounts subsequent to COD of Unit No. 10 (18/08/2013) and then subsequent to the Station COD (16/03/2014).*

v. *Additional Capital Expenditures subsequent to COD of respective units, actually incurred in FY 2013-14, provisional expenditure for FY 2014-15 and the projected expenditure for FY 2015-16 are filed as ₹ 30.63 Crores, ₹ 64.71 Crores and ₹ 281.81 Crores respectively. The total additional capitalization till 31st March, 2016 is ₹ 377.15 Crores.*

vi. *In pursuance with the provisions of the Regulations, income from Infirm Power generated from the two Units has been duly reduced from the fuel expenditure incurred till COD of the respective Units. Expenditures incurred on fuel and income from Infirm Power generated has been elaborated in respective section of this petition:*

vii. *The IDC amounts for Unit No. 10 and Unit No. 11 are ₹ 237.02 Crores and 313.11 Crore, respectively. Total IDC for the two Units is ₹ 550.13 Crores.*

viii. *A copy of the audited booklet titled "Capitalization of STPS Sarni Unit No. 10 & 11 (2X250 MW)", having complete details regarding capitalization of assets of STPS Extn. Units No. 10 and 11 till 31/03/2014, including the above details.*

ix. *The approved financing for the project is in the ratio of 80:20. 80% is through loan and 20% through equity, i.e. ₹ 2811.20 through loan and ₹ 702.80 Crores through equity, respectively. M/s PFC is the lending agency for loan and GoMP has funded the equity part.*

x. *Out of the total approved equity amount of ₹ 702.80 Crores an amount of ₹681.20 Crores has so far been sanctioned by the GoMP. GoMP shall be approached to sanction the balance equity amount of ₹ 21.60 Crores as and when required.*

xi. *PFC had initially sanctioned a loan (No. 20701003) amounting to ₹ 1878.20*

Crores, vide sanction letter dated 31/03/2008. Subsequently, in view of the revisions in the Project Cost Estimate, the aforesaid loan has been enhanced by an amount of ₹ 422.00 Crore vide PFC sanction letter dated 25/03/2010) and then by an amount of ₹ 431.56 Crore vide PFC sanction letter dated 22/11/2013.

xii. *Quarter wise loan and equity drawls are indicated in Form TPS-14, attached. Individual party wise PFC loan drawl is attached. Since loan and equity is not drawn Unit wise, the Unit wise breakup of debt and equity funding given in the above table is indicative only and is based on respective Unit wise ratios in the total expenditure on corresponding dates. An amount of ₹ 12.97 Crore which was earlier paid through Equity funding has been refunded during the period between COD of Unit No. 10 and COD of Unit No. 11 and the same amount has been released by PFC through loan funding.*

xiii. *Interest and Finance Charges on Loan Capital have been determined in accordance with the Regulation 23 of the Regulations 2012, on the basis of actual gross normative loan figures of ₹ 2090.21 Crore as on COD of Unit No. 10, ₹ 2432.77 Crore as on COD of Unit No. 11 and ₹ 2459.52 Crore as on 31/03/2014, respectively. Provisional figure for gross loan as on 31/03/2015 is ₹ 2525.96 Crore and projected figure for gross loan as on 31/03/2016 is ₹2810.77 Crore, respectively.*

xiv. *Return on Equity has been determined based on the actual paid up equity capital as on respective dates determined in accordance with Regulation 21 of the Regulation 2012 and on the base rate of return (15.5%) without grossing up the same with any tax rate. In case, due t**o** any change in Government policy, if any liability of tax and duties arises for any Year, the same shall be charged extra and the same shall be trued up in subsequent True Up Petitions.*

xv. *PPA has been signed between the petitioner and Respondent No. 1 on 04/01/2011. The Commission, vide Order dated 30/10/2013, has accorded approval to the aforesaid PPA subject to incorporation of the addendum to Clause 7.6.2 of the PPA as mutually agreed by the Respondent No. 1 and the Petitioner. Copy of the addendum dated 04/03/2014 to the PPA is attached.*

xvi. *Coal Linkage for STPS Extn. Units No. 10&11 was accorded by M/s WCL, Nagpur. The Petitioner has signed a Fuel Supply Agreement (FSA) dated 02/01/2013 with M/s WCL for supply of 18.513 LMT per annum of coal to STPS Extn. Units 10 & 11. As per the FSA, WCL shall endeavor to supply coal from own sources as mentioned in Schedule-I of the FSA. However, the* *guaranteed supply is limited to 65% of the ACQ during FY13 to FY15, 70% of the ACQ during FY16 and 80% of the ACQ during FY17 and onwards. The shortfall in the quantity is to be met through imported coal.*

xvii. The Other Expenses comprising of Electricity duty and Cess on Auxiliary Consumption, Rent Rates and Taxes payable to Government, MPERC Fee, Cost of Chemicals & Consumables, Arrears paid to employees, Water Charges, Publication Expenses and SLDC/RLDC/NLDC and Transmission Charges, etc., levied by various authorities shall be billed additionally on actuals."

17. Based on the above, the year-wise Annual Capacity (Fixed) Charges, Energy (variable) Charges and Other Charges claimed by the petitioner for STPS, Sarni-IV (2X250 MW) are summarized below:-

Table No. 3 -: Generation Cost of 2X250 MW STPS, Extn. Units No. 10 & 11

Particulars	Units	FY14			FY15	FY16
		COD of Unit No. 10 (18/08/2013) to COD of Unit No. 11	COD of Unit No. 11 (16/03/2014) to (31/03/2014)	Total for FY14	Units No. 10 & 11	Units No. 10 & 11
		U No. 10	U No. 10 & 11			
Normative Net Gen. for Period of operation	MU	979.97	149.33	1129.29	3406.55	3415.88
Return on Equity	₹ Cr.	46.39	90.75		90.75	99.18
Intt. & Fin. Charges	₹ Cr.	147.39	311.44		306.31	306.91
Depreciation	₹ Cr.	72.04	157.65		165.46	176.45
O&M Expenses	₹ Cr.	46.05	92.10		99.50	107.30
Interest on Working Capital	₹ Cr.	22.44	49.92		50.44	51.47
Cost of Sec. Fuel Oil	₹ Cr.	9.93	21.65		21.65	21.71
Total Annual Fixed Charges	₹ Cr.	**344.24**	**723.50**		**734.09**	**763.01**
Effective Days of oper.	Days	210	16		365	366
AFC for effective days of operation in the Year	**₹ Cr.**	**198.06**	**31.72**	**229.77**	**734.09**	**763.01**
	p/u	202.11	212.39	203.46	215.49	223.37
Variable Charges (VC)	**₹ Cr.**	**169.05**	**28.88**	**197.93**	**658.91**	**660.71**
	p/u	172.50	193.42	175.27	193.42	193.42
Total FC+VC (Indicative)	**₹ Cr.**	**367.10**	**60.60**	**427.70**	**1393.00**	**1423.73**

	p/u	374.61	405.81	378.73	408.92	416.80
Other Charges						
MPERC Fee	₹ Cr.			0.15	0.15	0.15
Water Charges	₹ Cr.			0.81	2.19	2.19
Rent rates & taxes	₹ Cr.			0.04	0.13	0.13
Cost of Chemicals & Consumables	₹ Cr.			0.27	0.82	0.83
SLDC and Trans. Charges	₹ Cr.			0.04	0.11	0.11
Total of Other Charges	**₹ Cr.**			**1.31**	**3.41**	**3.41**

***- Charges for FY15 & FY16 are provisional.**

18. With the above submission, the petitioner prayed for the following in the petition*:*
    a. *"Approve the final tariff of 2X250 MW, Satpura Thermal Power Station Extension Units No. 10 and 11, as given in Para 47, from their respective dates of Commercial Operation till 31/03/2014 on actual basis and for FY15 and FY16 on provisional basis which shall be trued up separately after finalization of accounts for FY15 and FY16.*
    b. *Permit additional recovery on account of Electricity duty and Cess on Auxiliary Consumption, Rent Rates and Taxes payable to Government, MPERC Fee, Cost of Chemicals & Consumables, Arrears paid to employees, Water Charges, Publication Expenses and SLDC/RLDC/NLDC and Transmission Charges, etc., levied by various authorities on the petitioner in accordance with law, on actual basis, over and above the fixed and variable charges.*
    c. *Allow the Petitioner to raise Arrear Bills for the recovery on account of approved final tariff in accordance with applicable Tariff Regulations."*

19. The petitioner filed the following essential documents with the petition:

S. No.	Particulars
1.	Approval of project cost of ₹ 3514 Crores by BOD, MPPGCL, vide resolution dated 04/01/2014
2.	Approval of project cost of ₹ 3514 Crores by Govt of M.P. on 23/01/2015
3.	Details of total capital expenditure for 2X250 MW STPS Extn. Units No. 10 & 11 till 31/03/2014.

4. Copies of letter Nos. 1757 dated 12/09/2013, 1872 dated 28/09/2013 and 2238 dated 16/12/2013 issued by MPPGCL regarding provisional time extension for completion of project.
5. Audited booklet "Capitalization of STPS Sarni Unit No. 10 & 11 (2X250 MW)"
6. PFC loan No. 20701003- sanction letters
7. Individual party wise PFC loan drawl details
8. PPA signed between MPPGCL and MP Tradeco/MPPMCL, dated 04/01/2011.
9. First Amendment Agreement to the aforesaid PPA signed on 26/09/2012
10. Copy of the addendum to the PPA dated 04/03/2014
11. Coal Linkage- accorded by M/s WCL, Nagpur, dated 12-13/07/2010
12. Fuel Supply Agreement (FSA) dated 02/01/2013
13. GoMP's Administrative approval dated 29/06/2006
14. Approval of BoD MPPGCL, dated 26/08/2006.
15. Approval of GoMP dated 25/06/2007.
16. BoD dated 11/12-02-2008 for revised project cost of ₹ 2637 Crores
17. Approval of GoMP for updated project cost estimate of ₹ 2637 Crores.
18. BoD Approval dated 26/11/2009 for revised project cost of ₹ 3032.34 Crs.
19. GoMP, Energy Department letter No. 1192/13/2010 dated 15/02/2010.
20. GoMP, Energy Department letter No.F-5-15/12/13 dated 22/08/2012.
21. BOD, MPPGCL approval of revised Project Cost Estimate of ₹ 3265 Crores dated 23/03/2013
22. Approval of M.P.P.C.B. dated 06/09/2011, granting permission to establish.
23. Environment & Forest clearances dated 27/02/2009.
24. Civil Aviation Clearance from Airport Authority of India- dated 25/07/2007 for construction of the Chimney of 280 M. height.
25. Civil Aviation – Revised NOC dated 17/06/2009, allowing construction of proposed Chimney to a height of 275 M. above ground level.
26. Certificate of possession of available land of 4695.8 Acres, issued by Collector Betul on 24/01/2009.
27. Possession letter dated 06/01/2011, along with Panchnama, issued by the Tehsildar Ghoradongri, indicating handing over of 130 Hectare land.
28. Panchnama & Khasra No. 490 & 491, 17/06/2011, for 0.87 Hectare Private land acquired at Ghoradongri near Railway Siding for construction of Railway Line .
29. GoMP's Equity release letters

30. Copy of the MOA signed between MPPGCL and PFC in respect of Loan
31. Amendatory MOAs between PFC and MPPGCL
32. Calculation sheets for weighted average rates of interest applied on loan
33. Copy of PFC letter dated 27/02/2015 regarding extended moratorium period

Procedural History:

20. Motion hearing in the subject petition was held on 19th May, 2015, when the petition was admitted and the petitioner was directed to serve copies of petition on all Respondents in the matter. The respondents were also asked to file their response on the petition if any, by 15th June, 2015.

21. Subsequently, vide Commission's letter dated 25th May, 2015, the information gaps and discrepancies in the subject petition were communicated to the petitioner and it was asked to file a comprehensive reply along with all relevant supporting documents by 30th June, 2015. Vide its letter dated 26th May, 2015, the petitioner confirmed that the copies of petition have been served on all the respondents.

22. By affidavit dated 30th June, 2015, the petitioner filed its response on the issues raised by the Commission. On perusal of the reply filed by MPPGCL, it was observed that the explanation of MPPGCL on some core issues regarding Interest During Construction, infirm Power and weighted average rate of depreciation was either un-replied or lacking clarity.

23. Vide Commission's letter dated 3rd August, 2015, the petitioner was asked to file a comprehensive reply on all such issues which were lacking clarity. By affidavit dated 25th August, 2015, the petitioner filed its response on the issues raised by the Commission.

24. On perusal of the response filed by the petitioner, it was observed that the issue regarding the cost of coal for generation of infirm power was still either un-replied or lacking clarity. Vide letter dated 28th September, 2015, the petitioner was asked to explain the reasons for using imported coal instead of domestic/linkage coal for generation of infirm power from Unit No. 10 and 11.

25. Details of the issues raised by the Commission along with the response filed by the petitioner on all such issues are mentioned in **Annexure-A** annexed with this order.

26. Vide letter dated 25th May, 2015, the petitioner was asked to file draft public notice on gist of the petition in Hindi and English version for inviting comments/ suggestions from the stake holders. Vide letter dated 10th June, 2015, the petitioner filed the public notice in Hindi and English version for approval of the Commission.

27. Vide Commission's letter dated 3rd August, 2015, the petitioner was asked to publish the public notice in newspapers in English and Hindi version inviting comments/objections/suggestions from all stake holders. The petitioner was also asked to file its response by 30th August, 2015 on the comments if any, offered by the stakeholders.

28. Vide letter dated 11th August, 2015, MPPGCL confirmed that the public notices seeking comments/suggestions from stake holders have been published on 7th August, 2015, in the following Hindi & English news papers.

    (i) Swadesh, Jabalpur (Hindi).
    (ii) Aacharan, Gwalior (Hindi).
    (iii) AgniBan, Bhopal (Hindi).
    (iv) Patrika, Indore (Hindi).
    (v) Free Press, Bhopal (English).

29. No comment from any stakeholder was received in the matter. The public hearing in the subject petition was held on 8th September, 2015, wherein only the representatives of the petitioner appeared.

30. By affidavit dated **8th October, 2015**, the petitioner finally filed its response on the issue related to imported coal used for generation of infirm power from Unit No. 10 and 11.

Analysis of the petition:

Capital Cost as on COD:

Provision Under Regulations:

31. With regard to the capital cost, 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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Petitioner’s Submission:

32. The petitioner submitted that the total capital expenditure for 2X250 MW STPS Extn. Unit No. 10 & 11 as on COD of Unit No. 10 (18/08/2013), as on COD of Unit No. 11 or the Station COD (16/03/2014) and at the end of financial year 2014 (31/03/2014) are ₹2943.60 Crores, ₹ 3159.78 Crores and ₹ 3166.94 Crores respectively. The petitioner mentioned that the aforesaid expenditures have been worked out after accounting for the fuel expenses during pre-commissioning activities and the revenue earned from Infirm Power generation and supplied from the two Units. The break-up of actual capital expenditure on the aforesaid dates are detailed as given below:

Actual Capital Expenditure for 2X250 MW STPS, Extn. Units # 10 & 11

Table No. 4 -: **(Amount in ₹ Crores)**

Particulars		**Hard Cost**	**Soft Cost**	**Total**
As on COD of Unit No. 10 (18/08/2013)	Unit 10	1164.53	386.98	1551.51
	Unit 11	1124.97	267.12	1392.09
	Total	**2289.50**	**654.10**	**2943.60**
As on COD of Unit No. 11 (16/03/2014)	Unit 10	1187.80	387.18	1574.98
	Unit 11	1168.47	416.33	1584.80
	Total	**2356.27**	**803.52**	**3159.78**
As on 31/03/2014	Unit 10	1191.31	387.21	1578.52
	Unit 11	1171.98	416.44	1588.42
	Total	**2363.29**	**803.65**	**3166.94**

33. The petitioner further submitted that out of the above total actual capital expenditure, the expenditure capitalized (as per the annual audited accounts) for both units as on CoD of Unit 10, CoD of Unit 11 and as on 31/03/2014 are ₹1286.45 Crores, ₹ 2936.20 Crores and ₹ 3093.09 Crores respectively. The balance expenditure under CWIP on the aforesaid three dates are ₹ 1657.15 Crores, ₹223.58 Crores and 73.85 Crores respectively. Unit-wise breakup of capital expenditure capitalized in books of accounts and under CWIP as filed by the

petitioner are as given below:-

Table No. 5 -: **(Amount in ₹ Crores)**

Particulars		Total Expenditure	Expenditure Capitalized	Expenditure in CWIP
As on COD of Unit No. 10 (18/08/2013)	Unit No. 10	1551.51	1207.07	344.44
	Unit No. 11	1392.09	79.38	1312.71
	Total	**2943.60**	**1286.45**	**1657.15**
As on COD of Unit No. 11 (16/03/2014)	Unit No. 10	1574.98	1552.10	22.88
	Unit No. 11	1584.80	1384.10	200.70
	Total	**3159.78**	**2936.20**	**223.58**
As on 31/03/2014	Unit No. 10	1578.52	1552.91	25.61
	Unit No. 11	1588.42	1540.18	48.24
	Total	**3166.94**	**3093.09**	**73.85**

34. The petitioner mentioned that full capitalization of actual capital expenditure of assets is expected during FY2014-15. The gross fixed assets of ₹ 3231.66 Crores is considered at the end of FY2014-15 against the total provisional capital expenditure of ₹ 3231.66 Crores till 31/03/2015. For FY2015-16 also it is assumed by the petitioner that 100% of the estimated capital expenditure till 31/03/2016, i.e. ₹3513.47 Crores, shall be capitalized by the end of FY2015-16. Therefore, the projected gross fixed assets of ₹ 3513.47 Crores as on 31/03/2016 is considered by the petitioner.

35. The petitioner filed the capitalization booklet incorporating the details of assets capitalization and assets under CWIP as on COD of Unit No. 10 & 11 certified by the Statutory Auditors. The details of the assets capitalized and the assets under CWIP as per books of accounts of FY 2013-14 and recorded in capitalization booklet as on COD of the unit No. 10 and 11 are as given below:

(i) **Capital cost of Unit No. 10 (Capitalized in books of accounts for FY 2013-14 and recorded in capitalization booklet) as on different dates:**

Table No. 6 -: ₹ Crores

Sr. No.	Particular	as on COD of Unit No. 10	as on COD of Unit No. 11	as on 31/03/2014
1	Hard Cost including P&M and Civil cost	907.66	1170.31	1171.12
2	IDC and Financing Charges	183.82	233.71	233.71

3	Cost of Start-up Fuel	84.71	108.97	108.97
4	Other Soft Cost	30.87	39.11	39.11
5	**Total Capital Cost of Unit No. 10**	**1207.07**	**1552.10**	**1552.91**

(ii) **Capital cost of Unit No. 11 (Capitalized in books of accounts for FY 2013-14 and recorded in capitalization booklet) as on different dates:**

Table No. 7 -: ₹ Crores

Sr. No.	Particular	as on COD of Unit No. 11	as on 31/03/2014
1	Hard Cost including plant and Machinery and Civil cost	1018.62	1134.68
2	IDC and Financing Charges	275.03	305.00
3	Cost of Start-up Fuel	54.94	61.22
4	Other Soft Cost	35.50	39.27
5	**Total Capital Cost as on CoD**	**1384.10**	**1540.18**

(iii) **Details of the expenditure under CWIP as on 31/03/2014 as per books of a/c and recorded in the capitalization booklet:**

Table No. 8 -: ₹ Crores

Sr. No.	Particular	Unit No. 10	Unit No. 11	Total as on 31/03/2014
1	Hard Cost including P&M and Civil cost	20.19	37.30	57.49
2	IDC and Financing Charges	3.32	8.14	11.46
3	Cost of Start-up Fuel	1.62	1.71	3.33
4	Other Soft Cost	0.48	1.08	1.56
5	**Total Capital Cost of Unit No. 10**	**25.61**	**48.23**	**73.84**

In view of the above, it is observed that the total capital expenditure of ₹ 3093.09 Crores has been capitalized by the petitioner till 31st March, 2014, in both the units.

36. On perusal of the details of project cost filed by the petitioner, it was observed that the petitioner has not filed the component-wise detailed break-up of the actual capital expenditure as on CoD of the respective units. Therefore, it was difficult to make the component-wise comparison of project cost with the project cost components approved by the BoD. Vide letter dated 25th May, 2015, the petitioner was asked to file the detailed break-up of actual project cost, liability and the variance in project cost along with the reasons of variance as prescribed in form TPS-5B.

37. By affidavit dated 30th June, 2015, the petitioner submitted that MPPGCL has made

its best efforts to indicate the project cost items booked under different account codes in the books of accounts with respect to the items listed in Form TPS-5B. The petitioner through its aforesaid submission filed a break-up of actual capital expenditure at different point of time. Unit-wise details of the project expenditure capitalized in books of accounts and expenditure under CWIP as filed by the petitioner are summarized as given below:

(i) **Break-up of assets capitalized and assets under CWIP as per Annual Audited Accounts till CoD of Unit-10 i.e.18/08/2013 filed by the petitioner:**

Table No. 9 -: **(Amount in ₹ Crores)**

Sr. No.	Particular	Capitalized	CWIP	Total Expenditure Unit No. 10
1	**Land & Site Development**	**40.20**	**0.00**	**40.20**
2	Plant & Equipment	378.86	77.28	456.14
3	BOP Mech. & Elect.	132.68	110.13	242.81
4	C&I Package	17.43	13.12	30.55
5	Plant & Equp. excluding taxes & Duties	528.96	200.53	729.49
6	Taxes & Duties	42.07	10.06	52.13
	Plant & Equipment incl. taxes & duties	**571.03**	**210.59**	**781.62**
7	**Initial Spares**	**14.11**	**0.00**	**14.11**
8	**Civil works along with Railway siding**	**222.72**	**43.84**	**266.56**
9.1	Start up Fuel net of rev. from infirm power	84.72	25.87	110.59
9	**Construction & Pre Comm. Expenses**	**159.15**	**32.24**	**191.40**
10	**Overheads**	**16.05**	**4.56**	**20.62**
11	Capital cost excluding IDC & FC	1023.26	291.23	1314.5
12	**IDC, FC, FERV & Hedging Cost**	**183.81**	**53.21**	**237.02**
	Total Capital cost including IDC, FC,	**1207.07**	**344.44**	**1551.51**

(ii) **Break-up of assets capitalized and assets under CWIP as per Annual Audited accounts till CoD of Unit No. 11 i.e. 16/03/2014 filed by the petitioner:**

Table No.10 -: **(Amount in ₹ Crores)**

Sr. No.	Particular	Capitalized	CWIP	Total Exp. Unit No. 11
1	**Land & Site Development**	**40.33**	**0.00**	**40.33**
2	Plant & Equipment	399.12	41.46	440.57
3	BOP Mechanical & Electrical	172.98	70.99	243.97
4	C&I Package	22.33	7.62	29.95
5	Plant & Equipment excluding taxes & Duties	594.43	120.07	714.50
6	Taxes & Duties	45.98	5.65	51.63
	Plant & Equipment including taxes & duties	**640.41**	**125.72**	**766.13**

7	**Initial Spares**	**14.67**	**0.00**	**14.66**
8	**Civil works along with Railway siding**	**255.64**	**19.50**	**275.13**
9.1	Start up Fuel	54.94	7.99	62.94
9	**Construction & Pre Comm. Expenses**	**139.79**	**14.88**	**154.67**
10	**Overheads**	**18.28**	**2.49**	**20.77**
11.	Capital cost excluding IDC & FC	1109.10	162.59	1271.69
12	**IDC, FC, FERV etc. Hedging Cost**	**275.00**	**38.11**	**313.11**
	Capital cost including IDC, FC, FERV	**1384.10**	**200.70**	**1584.80**

(iii) **Break-up of unit-wise assets capitalized and assets under CWIP as per Annual Audited Accounts along with liability till 31.03.2014 filed by the petitioner:**

Table No.11 -: **(Amount in Cr. ₹)**

S. No.	Break Down	Capitalization			Total CWIP	Liabilities
		Unit 10	Unit 11	Unit 10&11		
1	**Land & Site Development**	**41.57**	**40.33**	**81.90**	**0.00**	**7.76**
2	Plant & Equipment	453.57	428.13	881.7	15.52	33.29
3	BOP Mech. & Electrical	231.17	231.17	462.34	25.62	38.06
4	C&I Package	30.55	29.95	60.5	0.00	0.55
5	Plant & Equp. Excl. taxes & Duties	715.28	689.25	1404.53	41.13	71.90
6	Taxes & Duties	52.20	50.05	102.25	1.71	20.35
	Plant & Equ. Incl. taxes & duties	**767.48**	**739.30**	**1506.78**	**42.84**	**92.24**
7	**Initial Spares**	**14.86**	**14.66**	**29.52**	**0.00**	**52.11**
8	**Civil works along with Rly. siding**	**274.31**	**269.71**	**544.02**	**12.9**	**142.43**
9.1	Start up Fuel	108.97	61.23	170.20	3.33	0.00
9	**Construction and Pre Commissioning Expenses**	**200.66**	**150.98**	**351.64**	**5.82**	**20.57**
10	**Overheads**	**20.33**	**20.24**	**40.57**	**0.82**	**38.57**
11	Capital cost excluding IDC & FC	1319.22	1235.22	2554.40	62.38	353.68
12	**IDC, FC, FERV & Hedging Cost**	**233.69**	**304.97**	**538.66**	**11.47**	**0.00**
	Capital cost include. IDC, FC, etc.	**1552.91**	**1540.18**	**3093.09**	**73.85**	**353.68**

A. Investment Approval:

38. While scrutinizing the capital cost of the Extn. Unit No. 10 & 11 of STPS, Sarni, it was observed that the original project cost initially approved by the BOD and GoMP had been revised time and again. Therefore, some background and chronological events related to capital cost and investment approval of the project are discussed below :

(i) Vide letter dated 29th June, 2006, State Govt. accorded the administrative approval for setting up of 2X250 MW Extension Units 10&11 at Satpura Thermal Power Station, Sarni.

(ii) The proposal for setting up 2x250 MW Unit-10 and Unit-11 was approved by the Board of Directors (BoD) of MPPGCL vide Resolution passed in its 21st meeting held on January, 26th August, 2008 at a tentative project cost of ₹2350 Crores.

(iii) Vide letter dated 25th June, 2007, GoMP accorded approval for funding of project cost through debt and equity in 80:20 ratio, obtaining the 80% of loan component from financial institutions like PFC/REC and financing of the 20% equity component by the State Government.

(iv) The above-mentioned initial tentative project cost estimate of ₹ 2350 Crores was subsequently revised to ₹ 2637 Crores in the DPR prepared by the project consultant based on the LOIs placed on M/s BHEL for BTG package in March 2008. The petitioner mentioned that the orders for Civil Works of Main Power Block, Balance of Plant and Non-EPC works, etc. were however, not placed by that time. Therefore, the cost of civil work and BOP was taken as indicated in the DPR of the project. Interest During Construction was taken in the revised estimate @ 11.50 %.

(v) This updated project cost estimate of ₹ 2637 Crores as per DPR was approved by the BoD, MPPGCL (vide resolution passed in its 33rd meeting held on 11th-12th February, 2008) and by GoMP vide letter No. 1793/13/2008 dated 7th March, 2008. The break-up of the project cost components as per DPR prepared in March, 2008, and approved by the GoMP and Board are as given below:

Table No.12 -: **₹ Crores**

Revised Cost as per DPR prepared in March, 2008 and approved by GoMp and BoD (1st revision)		
Sr. No.	**Particular**	**Amount in ₹ Crores**
1	Turnkey EPC Cost	2184.87
2	Non EPC Cost	63.10
3	Land and R&R	10.00
4	Overheads	39.83
5	IDC and Financing Charges	339.12
	Total	**2636.92**

(vi) The petitioner mentioned that during finalization of BOP contract in July-August 2009, it was felt to revise the project cost estimate due to receipt of high prices of BOP vis-à-vis the costs considered in DPR. The project cost estimate was therefore, again revised to ₹ 3032.34 Crores.

(vii) Aforesaid revised project cost estimate of ₹ 3032.34 Crores was approved by the BoD vide Resolution passed in its 46th meeting held on 26th November, 2009, subject to further revision after placement of order for BoP and Railway Siding, etc.

(viii) GoMP vide its letter dated 15/02/2010 asked MPPGCL to submit a consolidated proposal for approval of revised project cost estimate after placement of orders for BoP and Railway Siding, etc. Subsequently, the proposal for STPS Unit No. 10 & 11 was put up to the Project Screening Committee (of GoMP) with revised project cost as ₹ 3032.34 Crores for further approval by Cabinet.

(ix) GoMP, vide letter No. F-5-15/12/13 dated 22/08/2012 approved, the revised project cost of ₹ 3032.34 Crores and based on this cost, balance equity of ₹253.32 Crores was approved by GoMP.

(x) The petitioner submitted that the aforesaid project cost estimate of ₹ 3032.34 Crores was subject to further revision after placement of orders for BoP and Railway Siding, etc. Therefore, the project cost was re-estimated by the petitioner as ₹ 3298.00 Crores on account of reasons mentioned in para 2.7 of the petition.

(xi) The Board of Directors (BOD) of MPPGCL in its 67th meeting held on 23rd March, 2013, approved the revised project cost of STPS Extn. Units No. 10 & 11 as ₹ 3265 Crores as against the proposal of ₹ 3298 Crores submitted by MPPGCL.

(xii) The aforesaid project cost estimate of ₹ 3265 Crores was again revised to ₹3514 Crores, mainly on account of increase in IDC and on account of increase in fuel expenditure during start up activities and trial operations of the Units. The revised project cost estimate of ₹ 3514 Crores was approved by BOD of MPPGCL vide resolution passed in its 72nd meeting held on 4th January, 2014. The aforesaid revised project cost of ₹ 3514 Crores was approved by GoMP vide letter No.F 5-15/2012/13 dated 23rd January, 2015.

39. The summary of the components of the project cost initially approved by the BoD and GoMP along with all four revisions as filed by the petitioner are as given below:

Table No.13 -: Details of investment approval with all revisions

Sr. No.	Particular	Estimated Project Cost (Amount in ₹ Crores)				
		Initially Approved	First Revision	Second Revision	Third Revision	Fourth Revision
1	Turnkey EPC Cost	1832.13	2184.87	2450.25	2569.61	2569.61
2	Non EPC Cost	23.50	63.10	132.30	204.5	330.9
3	Land and R&R	34.00	10.00	15.00	14.00	14.00
4	Overheads	160.46	39.83	46.91	81.88	79.96
5	IDC and FC	300.00	339.12	387.87	395	519.00
	Total	**2350.09**	**2636.92**	**3032.33**	**3264.99**	**3513.47**

40. On perusal of the aforesaid investment approval and all revisions, it was observed that none of the aforesaid investment approval of project cost filed by the petitioner has provided detailed break-up of project cost components. In order to find out the component wise cost overrun and one-to-one comparison of actual expenditure with the original project cost approved by the BOD and GoMP, a detailed break-up of each component in the project cost in all revisions of the investment approval of the project was required.

41. Vide letter dated 25th May, 2015, petitioner was asked to file detailed break-up of original project cost (initially approved) for the project and revision of project cost at different points of time approved by the BoD in its various revisions. The petitioner was also asked to file the reasons for variance in actual project expenditure in this regard.

42. By affidavit dated 30th June, 2015, the petitioner filed detailed break-up of the project cost approved by the BOD in its different revisions as given below:

Table No.14 -: Detailed break-up of the project cost approved by BoD: ₹ Crores

S. No.	Break Down	As approved in 46th BoD meeting dtd. 26.11.09	As approved in 67th BoD meeting dtd. 23.03.13	As approved in 72nd BoD meeting dtd. 04.01.14
1	**Cost of Land & Site Development**	**81.34**	**89.65**	**89.65**
2	Plant & Equipment (Steam Turbine Generator Island)	893.10	937.39	937.39
3	BOP Mechanical & Electrical	589.48	554.84	554.84
4	MPB+BoP C&I Package	51.30	61.05	61.05
5	Plant & Equipment excluding taxes & Duties	1533.88	1553.28	1553.28
6	Taxes & Duties	160.10	124.27	124.27
	Plant & Equip. incl. taxes & duties	**1693.98**	**1677.55**	**1677.55**
7	**Initial Spares**	**58.11**	**81.63**	**81.63**
8	**Civil works along with Rly. siding**	**503.25**	**703.46**	**703.46**
9.1	Start up Fuel	5.00	25.00	151.42
	Const. & Pre Comm. Expenses	**260.88**	**235.82**	**362.22**
10	**Overheads**	**46.91**	**81.87**	**79.96**
11.	Capital cost excluding IDC & FC	2644.47	2869.98	2994.47
12	**IDC, FC, FERV & Hedging Cost**	**387.87**	**395.00**	**519.00**
	Capital cost including IDC, FC, FERV & Hedging Cost	**3032.34**	**3264.98**	**3513.47**

43. The Commission issued provisional tariff order on 8th October, 2013, for Unit No. 10 (from CoD to 31/03/2016) by considering the provisional capital cost of ₹ 1508.68 Crores based on the Auditor's certificate for actual expenditure and available details and documents filed by the petitioner. Details of the capital cost considered by the Commission as on the date of commercial operation of the generating unit No. 10 through aforesaid provisional orders are given below :

Table No.15 -: Approved in provisional tariff order dated 08.10.2013 for Unit No. 10

Sr. No.	Particular	Amount in ₹ Crores
1	Turnkey EPC Cost	1200.91
2	Non EPC Cost	
3	Land and R&R	40.87
4	Overheads	28.64
5	IDC and Financing Charges	238.26
	Total	**1508.68**

44. On scrutiny of the capital cost of the project, it was observed that the Annual Audited Accounts for FY2013-14 filed by MPPGCL are for the company as a whole and it was difficult to substantiate the assets capitalized for STPS Ext. Unit No. 10 & 11. Therefore, vide Commission's letter dated 25th May, 2015, the petitioner was asked to file the power station-wise break up of the audited figures with respect to the opening GFA, assets added during the year and closing GFA along with the assets under CWIP during FY2013-14.

45. By affidavit dated 30th June, 2015, the petitioner filed the details regarding power station-wise break up of the audited figures with respect to the opening Gross Fixed Assets, assets added during the year and closing Gross Fixed Assets along with the assets under CWIP during FY 2013-14. The project cost details filed in the petition have been found in accordance with the books of accounts for FY 2013-14.

46. Regarding the apportionment of the common capital cost as on the COD of Units, vide letter dated 25th May, 2015, the petitioner was asked to submit the bifurcation of common capital cost incurred and capitalized for the common facilities between Unit 10 and Unit 11 as on the CoD of each unit. The petitioner was also asked to file the statement for apportionment of common facilities as per clause 8.3 of the Regulations, 2012.

47. By affidavit dated 30th June, 2015, the petitioner submitted that the common facilities of the project have been apportioned equally between Units 10 and 11 on the basis of the capacity of these Units, as per clause 8.3 of the Regulations, 2012. The petitioner further submitted the details regarding bifurcation of the common capital cost as on the COD of Unit No. 10 and 11 in Annexure-4 with its submission.

B. Cost Overrun and time Overrun:

48. On perusal of the DPR of the project prepared in March, 2008, it was observed that the total estimated project cost including IDC was ₹ 2636.91 Crores. In the subject petition, the petitioner filed completion cost of the project as ₹ 3514 Crores. It was further observed that the initial estimated project cost approved by the Board of

petitioner's company and GoMP was ₹ 2350 Crores which has been further revised time and again and the latest revised estimated project cost as approved by its Board on 04/01/2014 and by GoMP on 23/01/2015 is ₹ 3514 Crores.

49. In para 2.7 of the petition, the petitioner submitted the following reasons/ justifications in support of cost overrun from ₹ 3032.34 Crores to ₹ 3298 Crores in revised investment approvals:

(i) *"Main Power Block:- Estimated cost for supply, erection, testing and commissioning of Main Power Block (MPB) was revised on the basis of order on M/s BHEL with due consideration of price variation on account of delay in MoEF clearance for a period of 7 months. The variation in rate of excise Duty was taken care of. The cost of MPB earlier estimated as ₹ 1314 Crores was estimated to be ₹ 1308.50 Crores due to savings in taxes and duties.*

(ii) *Civil Works of Main Power Block:- Estimated cost for civil works of Main Power Block was revised on the basis of order placed by M/s BHEL on their sub contractor + 10% (cost plus basis). The revised figure on this account was ₹257.00 Crores as against earlier estimated value of ₹ 298.25 Crores, which was due to reduction in quantities for various items of civil works estimated earlier.*

(iii) *Balance of Plant:- Estimated cost for Balance of Plant (BoP) was revised on the basis of order placed on M/s MBEL with anticipated price variation @ 20% and variation in rate of Excise Duty, etc. The cost for BoP, which was earlier taken as ₹ 838 Crores subject to further revision on placement of orders, was estimated as ₹ 984.50 Crores based on the orders placed for BOP package.*

(iv) *Site Development & Enabling works:- Estimated cost for such civil works under Non-EPC scope was revised from earlier provision of ₹ 65.34 Crores to ₹ 74.65 Crores. The revised cost was based on the actual expenditures of ₹ 63.62 Crores incurred up to Sept, 2012 and the balance expenditure of ₹11 Crores towards completion of such works including construction of boundary wall at an ordered cost of ₹ 10.30 Crores.*

(v) *Railway Siding Work:- Estimated cost for the work of Railway Siding development was revised on the basis of order placed and the provisional expenditure incurred on OHE and S&T works being carried out by the Central Railways on deposit work basis. The revised estimated cost of ₹ 84 Crores was under final approval of Railways. Thus, a provision of ₹ 88.2 Crores was considered, including contingent provision @ 5%, as against previous estimate of ₹ 32.7 Crores.*

(vi) *Contingency Provision:- Contingency earlier considered at ₹ 20.81 Crore was revised to ₹ 28.97 Crore. Enhancement of expenditures on this account was due to provisions for meeting out the expenditures towards additional works like shifting of power lines of Transco/ Discom passing through the area earmarked for new units, construction of new pedestals for shifting of existing ash lines to create space for construction of Ghoradongri-Sarni diversion road. In addition, provisions for some more unavoidable new works, such as reorientation of Switch Yard bays, etc., were made.*

(vii) *Establishment Cost and A&G Expenses: - The establishment cost and A&G expenses increased from ₹ 13.05 Crore to ₹ 43.10 Crore. The increase in this cost was due to the fact that earlier estimation was made @ 0.5% of total works cost whereas the revised estimation was on the basis of actual expenditures incurred on this account upto March 2012 and thereafter on the basis of projection with the same trend.*

(viii) IDC and FC:- Keeping in view the then anticipated dates of Commercial Operation for Unit No. 10 (01/04/2013) and Unit No. 11 (30/06/2013), the estimated value of IDC and FC got revised to ₹ 395.00 Crore from the earlier estimated figure of ₹ 387.88 Crore.

(ix) *Start-up Fuel:- Start-up fuel, earlier estimated at ₹ 5 Crore, has now increased due to enhancement in fuel cost and based on quantities assessed by BHEL site/MPPGCL.*

(x) *Construction of Colony Quarters:- Around 100 number B and C type quarters were proposed to be constructed at an estimated cost of ₹ 18 Crore.”*

50. With regard to cost of civil works, it was observed that the estimated civil cost of the

project was ₹ 372.60 Crores whereas, the cost of Civil works along with railway siding indicated as ₹ 23.90 Crores and ₹ 51.84 Crores as on CoD of Unit No. 10 and 11 respectively in the petition. In view of the above, vide Commission's letter dated 25th May, 2015, the petitioner was asked to file the reasons for such huge variation in the cost of civil works filed in the petition.

51. In response, by affidavit dated 30th June, 2015, the petitioner submitted that the estimates of the Civil works in DPR are generally consolidated for the ease of placement of orders. As against the figure of ₹ 372.60 Crores (as shown in the DPR) the provision for civil works in the latest approved estimate of ₹ 3514.00 Crores, is ₹ 615.26 Crores and the figure for Civil Works along with Railway Siding is ₹ 703.46 Crore. With regard to accounting of the cost of civil works, the petitioner submitted the following:

> *"It is pertinent to mention that the civil works are primarily for providing foundations, support structure, covering shed, etc. for various plant and equipment or include such civil structures which are directly attributable to bringing the main plant and equipment to its full working condition for the intended use. They have no use, except for providing foundations and shelter to their parent equipment (e.g. boiler, turbine, crushers, wagon tipplers, conveyor belts, motors, etc.) or are necessary for bringing the main plant and equipment to its full intended use (e.g., chimney). At the same time these parent equipment can also not function without these civil works. Therefore, the actual cost of equipment for capitalization purpose should be considered only after considering cost of foundation, support structure, covering shed, etc., for them. The same has been done while capitalizing these equipment in the books of accounts. This is also in line with the provisions of Accounting Standard 10."*

52. The petitioner further submitted that the civil works which have separate identity and functions independently are considered under the item "Civil works along with Railway Siding" for the purpose of calculation of wt. average rate of depreciation, as per capitalization booklet. The aforesaid wt. average rates of depreciation have been arrived by the petitioner on the basis of details in the Audited books of accounts and capitalization booklet. The same has also been audited by the Statutory Auditor and checked by team of AG during Supplementary Audit of the accounts for FY 2014.

53. With regard to the commissioning of the generating units, the Resolution passed by the Board of Directors of MPPGCL on 26th August, 2006, stated the following:

> *"Govt of M.P. has accorded administrative approval for the installation of 2x250 MW extension units 10 and 11 at STPS, Sarni vide letter dated 29th June, 2006. As per the directive of Energy Department, GoMP above units are to be commissioned during October, 2009 and December, 2010 respectively-----."*

54. In para 25 of the petition, the petitioner mentioned that as per the contract awarded to BHEL, COD of Unit No. 10 & 11 were to be achieved within 35th and 39th months from the effective date of contract (27/02/2009), i.e. by January' 2012 & May' 2012 respectively. However, the commissioning targets have slipped by about 18 months for Unit No. 10 and by about 21 months for Unit No. 11 due to reasons mainly attributable to the contractors.

55. By affidavit dated 30th June, 2015, the petitioner reiterated its contention that the scheduled dates of commercial operation of STPS Extn. Units No. 10 & 11 were same as January' 2012 and May' 2012, respectively, as specified in the contract awarded to M/s BHEL. The actual dates of commercial operation of the Unit No. 10 and 11 are 18th August' 2013 and 16th March' 2014 respectively.

56. The petitioner mentioned that the time extension to the contractors M/s BHEL (contractor for Main Power Block) and M/s MBEL (contractor for BOP) was granted by MPPGCL up to 18/08/2013 and 31/12/2013, respectively for completion of all facilities of Unit No. 10 and 11, without prejudice to the recovery of Liquidated Damages (L.D.) and interest on unadjusted advance portion as per Contract.

57. In view of the above, the Commission observed that there has been substantial delay in achieving the COD of the generating Units, which contribute cost overrun in terms of IDC of the project. The details of the scheduled COD, actual COD and unit wise delay observed for Unit No. 10 and 11 are as given below:

Table No.16 -:

Generating Units	Scheduled CoD	Actual CoD	Delay in CoD
Unit No. 10	January, 2012	18/08/2013	18-months
Unit No. 11	May, 2012	16/03/2014	21-months

58. In para 2.9 of its earlier petition for approval of provisional tariff, MPPGCL submitted

that *“……….The actual position in respect of the LD amount deducted from contractors’ bills shall be submitted at the time of filing the petition for final generation tariff for these Units.”*

59. Considering the above submission of the petitioner, the following was mentioned in para 17 of the provisional tariff order passed by the Commission on 8th October’ 2013:

“In view of the above, the Commission has considered the capital cost as on CoD of Unit No. 10 as per the Chartered Accountant’s Certificate dated 9th September, 2013 filed by the petitioner through affidavit dated 13th September, 2013. As submitted by the petitioner, the liquidated damages (LD) are yet to be finalized. Therefore, reasons for delay in commissioning of the unit and the issue of IDC beyond the scheduled CoD of the unit is not dealt with in this provisional Order. The aforesaid issue shall be examined in the final tariff petition for the subject units to be filed by MPPGCL. The petitioner is directed to submit the complete details regarding the reasons for delay in commissioning of the units, recovery against liquidated damages and the complete IDC details up to scheduled CoD and the actual CoD of the units along with the petition for determination of final tariff.”

60. Vide letter dated 25th May, 2015, the petitioner was asked to inform whether the delay in CoD of Unit 10 and Unit 11 was attributable to the delay in completion of works by the contractors/agencies. The petitioner was also asked to inform, whether any Liquidated Damages/penalty have been recovered/to be recovered.

61. By affidavit dated 30th June, 2015, the petitioner submitted the following:

“*MPPGCL had granted provisional time extension to M/s BHEL and M/s MBEL for completion of all facilities of Unit No. 10 and 11 up to 18/08/2013 and 31/12/2013, respectively, without prejudice to the recovery of LD and interest on unadjusted advance portion as per Contract. It is submitted that the copies of letter dated 12/09/2013, dated 28/09/2013 and dated 16/12/2013 regarding provisional time extension have already been submitted with the Petition.*

As the COD of Unit No. 11 could not be achieved till 31/12/2013, it was decided that if the deduction is started towards recovery of LD this may hamper the work of Unit No. 11. As such, considering the security in hand, which is far more than the LD for *delay, it was decided not to deduct LD from the subsequent bills. Therefore, no recovery on account of LD due to delay in commissioning of the Units has been made till date. The actual position in respect of the LD amount deducted/ to be deducted* from respective *contractors' bills shall be submitted once the final decision in the matter is taken by the competent authority."*

C. Interest during Construction (IDC):

62. The petitioner filed the actual Interest During Construction(IDC) and Financing Charges (FC) for Unit No. 10 and Unit No. 11 till CoD are ₹ 237.02 Crores and ₹ 313.11 Crores, respectively. The total Interest during construction including FC for both the Units as filed by the petitioner is ₹ 550.13 Crores.

63. On perusal of the details and documents filed by the petitioner, the Commission observed that the IDC and financing charges as per initial cost estimate was ₹ 300 Cr. which has now increased to ₹ 519 Crores in latest revised cost estimate approved by the BOD on 4th January, 2014 and by GoMP on 23rd January, 2015.

64. The Commission further observed that the amount of IDC approved by BOD and GoMP in its latest revision of project cost approval (4th revision) is ₹ 519 Crores whereas the actual IDC amount for the project filed by the petitioner is ₹ 550.13 Crores. The actual IDC amount of ₹ 550.13 Crores neither approved by the BOD of the petitioner company nor by the GoMP till date.

65. Vide Commission's letter dated 25th May, 2015, the petitioner was asked to file the actual IDC for Unit 10 and Unit 11 with detailed computation of IDC as on scheduled CoD and as on actual CoD of both the units. The petitioner was also asked to file the reasons for abnormal increase in IDC from schedule CoD to actual CoD of the units along with basis of allocation of IDC between Unit No. 10 &11.

66. By affidavit dated 30th June, 2015, the petitioner filed its response on the issues raised by the Commission as follows:

> *"As submitted earlier, vide MPPGCL's reply dated 30/08/2013 in the matter of Petition No.11/2013 for approval of provisional generation tariff for the subject Units, it is submitted that the IDC & FC associated with the scheduled loan drawl of ₹2425.88 Crores upto the scheduled station COD was ₹ 387.87 Crores. Estimated figure for IDC & FC as per the latest revised*

project cost estimate of ₹3514 Crore was ₹ 519.00 Crore. Reasons for increase in IDC & FC amount from the earlier estimated figure of ₹ 387.87 Crore to that of ₹ 519.00 Crore are as given below:-

- *Delay in commissioning of the Unit No. 10 & No.11,*
- *Enhanced loan amount, from ₹ 2300.20 Cr. to ₹ 2731.76 Cr., as per revised project cost estimate,*
- *Increase in interest rate on PFC loan, from 11.5% to 13.0%.*

Total actual IDC & FC for the two Units as on Station COD, as per the audited books of accounts of MPPGCL, is ₹ 550.13 Crore. It is submitted that the details of Unit wise IDC amounts and the respective amounts capitalized in the audited accounts of FY14 have already been submitted in the capitalization booklet attached with the Petition as Annexure-9. Increase in IDC & FC amount from the estimated figure of ₹ 519.00 Crore to the actual figure of ₹ 550.13 Cr., as on Station COD, was mainly on account of delay in achieving the COD.

Regarding the basis of allocation of IDC & FC Cost among Unit 10 and Unit 11, it is humbly submitted that the same is in the ratio of actual expenditure incurred/allocated on the respective Units.

67. Regarding the abnormal increase in IDC with respect to initial cost estimate, the petitioner further submitted the following:

"As submitted above, the increase in IDC & FC amount from ₹ 300 Crore estimated in the initial estimate to ₹ 519 Crore estimated in the latest revised estimate of ₹ 3514 Crore was mainly on account of increase in loan amount due to the revisions in project cost estimate, delay in completion of the project and change in interest rates of PFC loan from time to time.

The initial project cost estimate corresponding to the IDC & FC amount of ₹ 300 Crore was ₹ 2350.00 Crore and the respective debt funding required was ₹1880.00 Crore, as per approved funding pattern of 80:20 through Loan and Equity. The corresponding loan amount then sanctioned by PFC was ₹ 1878.20 Crore. The latest revised project cost corresponding to the revised IDC & FC figure of ₹ 519.00 Crore is ₹ 3514.00 Crore. The required debt funding for the project cost estimate of ₹ 3514 Crore is ₹ 2811.20 (80% of ₹ 3514 Crore) and the corresponding loan amount sanctioned so far by PFC is ₹ 2731.76 Crore.

As per the contract, COD of Unit No. 10 & 11 were to be achieved within 35th and 39th months from the effective date of contract (27/02/2009), i.e., by Jan' 2012 & May' 2012 respectively. However, the commissioning targets have slipped by about 18.5 months for Unit No. 10 and by about 21.5 months for Unit No. 11. There were various reasons for delay. It is humbly submitted that the major reasons for delay have already been elaborated in para 2.15.2 of the Petition ------."

68. In para 2.15 of the petition, the petitioner submitted the following reasons for delay in achieving COD of units:-

a) Delay in submission of Design & Engineering (D&E) documents by the contractors.
b) Non availability of required grade cement at some occasions and non deployment of manpower by the contractor, especially skilled manpower.
c) Delay in fixing sub contractors by the contractors.
d) Delay in supplying materials by the contractors as per requirement of work.
e) Delay in deployment of adequate T&P by the contractor.
f) Delay in handing over of few fronts to Balance of Plant (BOP) contractor by Main Power Block (MPB) contractor.
g) Changes in site condition while executing the actual work at site.
h) Unprecedented heavy rains during last two monsoons sometimes causing flooding of works sites thereby affecting the progress of work.

69. On scrutiny of the above-mentioned response and reasons filed by the petitioner, it was observed that the increase in IDC & FC amount from the estimated amount to the actual figure of ₹ 550.13 Crores (as on Station COD) was mainly on account of delay in achieving the COD of the generating units. Vide letter dated 3rd August, 2015, the petitioner was asked to file the total increase in IDC due to delay in COD of both the Units. The petitioner was also asked to file the detailed computation of IDC as on Scheduled COD and as on actual COD of both the units.

70. By affidavit dated 25th August, 2015, the petitioner filed its response as follows:
"The increase in IDC & FC amount from the estimated figure of ₹ 519.00 s to the actual figure of ₹ 550.13 Crore was on account of slippage in achieving the COD of Unit No. 11 for the reasons submitted in the petition. The revised approved project

cost of ₹ 3514.00 Crores was put up for approval of the BOD MPPGCL in December 2013.

At that point of time the Unit No. 10 was already put into commercial operation and the Unit No. 11 was anticipated to be put into commercial operation by end of Dec 2013. Accordingly, in the revised project cost estimate of ₹3514.00 Crore the IDC & FC amount was estimated at ₹ 519.00 Crore based on the actual loan drawl of ₹2177.28 Crore till Sep 2013 and an anticipated total loan drawl amount of ₹2311.70 Crore till Station COD. However, the COD of Unit No. 11 got further delayed by some more time and actually achieved on 16/03/2014. The total actual loan drawl till Station COD was ₹2432.76 Crore, as against the estimated figure of ₹2311.70 Crore. As such the IDC & FC amount increased partly due to increase in loan drawl till COD and also on account of further shifting of COD date from Dec 2013 to 16/03/2014. Thus, the increase in IDC due to delay of around two and half months in achieving the Station COD from the revised anticipated schedule of Dec 2013 to 16/03/2014 was approximately around ₹29.75 Crore.

The total actual IDC & FC for Unit No. 10 and Unit No. 11 up to Station COD is ₹550.13 Crore. Out of the aforesaid amount of ₹ 550.13 Crore, the IDC & FC amount for Unit No. 10 is ₹237.02 Crore (upto 18/08/2013) and that for Unit No. 11 is ₹ 313.11 Crore (up to 16/03/2014). Quarter wise breakup of the loan drawls and the corresponding IDC & FC amounts till actual Station COD (16/03/2014) has already been submitted in Form TPS-14 filed with the petition.

As submitted earlier, the IDC & FC associated with the scheduled loan drawl of ₹2425.88 Crores upto the scheduled station COD (May 2012) was ₹387.87 Crore. The detailed quarter wise break up for the IDC & FC as on scheduled COD is attached as Annexure-2."

71. After considering the aforesaid response/ submissions made by the petitioner, the Commission has noted that most of the aforesaid reasons for delay in CoD of generating units were controllable and attributable to the contractor/vendors.

72. Hon'ble APTEL in its Judgment in Appeal No. 72 of 2011 while allowing the impact of increase in costs due to delay in achieving COD has categorically stated the following:

"7.4. The delay in execution of a generating project could occur due to following

reasons:

(i) due to factors entirely attributable to the generating company, e.g imprudence in selecting the contractors/suppliers and in executing contractual agreements including terms and conditions of the contracts, delay in award of contracts, delay in providing inputs like making land available to the contractors, delay in payments to contractors/suppliers as per the terms of contract, mismanagement of finances, slackness in project management like improper co-ordination between the various contractors, etc.

(ii) due to factors beyond the control of the generating company e.g. delay caused due to force majeure like natural calamity or any other reasons which clearly establish, beyond any doubt, that there has been no imprudence on the part of the generating company in executing the project.

(iii) situation not covered by (i) & (ii) above. In our opinion in the first case the entire cost due to time over run has to be borne by the generating company. However, the Liquidated Damages (LDs) and insurance proceeds on account of delay, if any, received by the generating company could be retained by the generating company. In the second case the generating company could be given benefit of the additional cost incurred due to time over-run. However, the consumers should get full benefit of the LDs recovered from the contractors/suppliers of the generating company and the insurance proceeds, if any, to reduce the capital cost. ***In the third case the additional cost due to time overrun including the LDs and insurance proceeds could be shared between the generating company and the consumer.*** *It would also be prudent to consider the delay with respect to some benchmarks rather than depending on the provisions of the contract between the generating company and its contractors/suppliers. If the time schedule is taken as per the terms of the contract, this may result in imprudent time schedule not in accordance with good industry practices."*

73. Hon'ble APTEL in its Judgment with regards to sharing of impact on account of increase in cost due to mix of controllable and uncontrollable factors had decided the following:

(i) "7.12. In view of above, we feel that this case falls under category (iii) described in para 7.4. Accordingly, following the principles of prudence check laid down by us, the cost of time over run has to be shared equally between the generating company and the consumers. Admittedly, there is no enhancement in cost of the contract price of the equipment as no price variation escalation was permissible

to BHEL beyond the schedule date of completion of the Project according to the terms of the agreement. The impact of time over run beyond the contractual schedule is only on IDC and overhead costs. Accordingly, the same have to be shared between the generating company and the consumers. Excess IDC and overhead costs for time overrun from scheduled date of commissioning to actual date of commissioning has to be worked out on prorate basis with respect to total actual time taken in commissioning of the Unit. 50% of the excess IDC and overhead costs will have to be disallowed……...”

74. In view of the aforesaid observations, the Commission has allowed only 50% of the excess IDC & FC (claimed beyond schedule CoD of units) at this stage in this order on account of delay in commissioning of the Project.

75. Accordingly, the details of IDC allowed till CoD of the each unit allowed in this order is as given below:

Table No.17 -: Interest During Construction: ₹ Crores

Particular	Unit No. 10	Unit No. 11	Total
Actual IDC and FC as on actual CoD filed	237.02	313.11	550.13
Actual IDC and FC as on Scheduled CoD	167.12	220.76	387.88
Increase in IDC and FC due to delay in commissioning	69.90	92.35	162.25
50% of the excess IDC and FC	34.95	46.17	81.13
Total IDC and FC Allowed in this order	**202.07**	**266.94**	**469.01**

76. Despite several queries and follow-up by the Commission while processing the subject petition, the petitioner has not been able to inform the position in respect of LD amount deducted from the contractor’s bill whereas, it was committed by MPPGCL in earlier petition that the actual position of LD amount shall be submitted at the time of filing the subject petition. However, the petitioner is still at liberty to approach the Commission at the earliest with the actual amount of LD if any, deducted from its Contractor(s)/ Vendor(s) along with all relevant supporting documents.

77. On perusal of the capitalization booklet, it is observed that the petitioner has not capitalized full amount of IDC on CoD of each unit. Therefore, the capitalization of

IDC at different dates is considered proportionately as given below:

Table No.18 -: Interest During Construction and Financing Charges Allowed: ₹ Crores

Unit	Particular	As on COD of Unit No. 10	As on COD of Unit No. 11	As on 31/03/2014
Unit No. 10	Actual IDC & FC Capitalized as filed	183.82	233.71	233.71
	Amount Under CWIP filed	53.22	3.33	3.33
	Total IDC & FC Filed	237.02	237.02	237.02
	% of Filed IDC & FC Capitalized	77.55	98.60	98.60
	Total IDC & FC allowed	202.07	202.07	202.07
	Capitalized IDC & FC allowed	**156.71**	**199.25**	**199.25**
	IDC&FC Considered under CWIP	45.35	2.82	**2.82**
Unit No. 11	Actual IDC & FC Capitalized as filed	-	275.04	305.01
	Amount Under CWIP filed	**-**	38.12	8.14
	Total IDC & FC Filed	-	313.11	313.11
	% of Filed IDC & FC Capitalized	**-**	87.84	97.41
	Total IDC & FC allowed	**-**	266.94	266.94
	Capitalized IDC & FC allowed	**-**	**234.48**	**260.03**
	IDC&FC Considered under CWIP	**-**	32.46	**6.91**

D. Infirm power:

78. Regarding 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."

79. In the subject petition, the petitioner submitted the following details regarding infirm power generated prior to CoD of the generating units:

Net Fuel Expenditure during Pre Commissioning Activities filed by the petitioner:

Table No. 19 -: **₹ Crores**

S. No.	Particulars	Unit	Unit 10	Unit 11	Total
1	Date of synchronization	Date	22/02/2013	02/10/2013	
2	Date of Commercial Operation	Date	18/08/2013	16/03/2014	

3	Infirm Energy generated	MU's	101.23	99.03	200.26
4	Oil Expenses for infirm power	₹ Cr.	76.36	40.03	116.39
5	Coal Expenses for infirm power	₹ Cr.	41.48	32.04	73.52
6	Total Fuel Expenditure	₹ Cr.	117.85	72.07	189.92
7	Less Income from sale of Infirm Power	₹ Cr.	-7.26	-9.14	-16.40
8	**Net Fuel Cost Charged to Project Cost**	**₹ Cr.**	**110.59**	**62.94**	**173.53**

80. The petitioner submitted that the corresponding revenue earned from Infirm Power generated from STPS Extn. Unit No. 10 is ₹ 4.10 Crores, whereas, in the books of accounts for FY 2013-14, an amount of ₹ 7.26 Crores has been booked as revenue earned from Infirm Power generation from Unit No. 10. This is so because some subsequent revisions in the monthly UI/DSM charges accounts made by SLDC which could not be given effect to, in the books of accounts for FY 2013-14. The petitioner mentioned that the effect of above changes shall increase in the project cost. However, the above changes shall be accounted for in the books of accounts for FY 2014-15, hence the same has also not been considered at this stage. Necessary correction for the same shall be made in the true petition for FY 2014-15.

81. By affidavit dated 30th June, 2015, the petitioner reiterated its aforesaid contention in its additional submission in response to the queries raised by the Commission.

82. On scrutiny of the SLDC certified statement (dated 24.03.2015), regarding infirm energy details, it is observed that there is a totaling mistake in the statement. The corresponding revenue earned from Infirm Power generated from STPS Extn. Unit No. 10 is shown as ₹ 4.10 Crores in the aforesaid statement whereas, sum of the revenue earned in different months comes out to ₹ 7.26 Crores. Therefore, the revenue earned from sale of infirm power generated from Unit No. 10 is considered as ₹ 7.26 Crores and same amount has been capitalized by the petitioner in books of accounts for FY 2013-14. Therefore, there is no need for any revision in capital cost on this account at later stage.

83. With regard to the higher cost of oil consumed from generation of infirm power from Unit No. 10, the petitioner submitted that the time duration between oil synchronization and the date of CoD was more in case of Unit No. 10 as compared to that for Unit No. 11. This was so, because the stabilizing time for Unit No. 10 was more in initial stages due to frequent tripping of various auxiliaries on account of

various teething problems. This resulted in higher consumption of secondary oil in Unit No. 10 as compared to that in Unit No. 11.

84. By affidavit dated 25th August, 2015, the petitioner filed the following details of the coal cost for generation of infirm power:

Table No. 20 -: Coal cost for generation of infirm power filed: ₹ Crores

Unit	Particular	Indian Coal	Imported Coal	Total
Unit No. 10	Quantity (MT)	168720.12	7655	176375
	Amount (₹ Cr.)	372604189	42284897	**41.49**
	Rate (₹ / MT)	**2208.42**	5523.83	2352.31
Unit No. 11	Quantity (MT)	95653.41	10707.7	106361.11
	Amount (₹ Cr.)	251698252	68714991	**32.05**
	Rate (₹/ MT)	**2631.36**	6417.34	3012.50

85. Vide Commission's letters dated 3rd August, 2015 and 28th September, 2015, several details/information in respect of coal cost incurred for generation of infirm power were sought from the petitioner. By affidavits dated 25th August, 2015 and 8th October, 2015, the petitioner filed its response on the issues raised by the Commission. On detailed scrutiny of the additional submissions filed by the petitioner, the Commission observed the following:

(i) The primary fuel other than domestic coal was consumed during generation of Infirm Power from the subject Units. Imported coal of 7655 MT was consumed in Unit No. 10 and imported coal of 10707 MT was consumed in Unit No. 11. Total imported coal 18362 MT consumed in Unit No. 10 & 11.

(ii) Fuel Supply Agreement (FSA) for STPS Extn. Units No. 10 & 11, Sarni was executed with WCL on 02/01/2013. In para 2.10.2 of the FSA, it is mentioned that the indicative coal quantities to be supplied by the seller and to be off taken by the purchaser during the Build-up period are 100278 MT.

(iii) Vide letter dated 30/01/2013, MPPGCL had requested CEA New Delhi to recommend CIL for supplying 100000 MT of Coal for start up, trial run & commissioning activities of these Units.

(iv) Vide letter dated 23/02/2013, M/s WCL had agreed to supply 50,000 MT of coal to STPS Extn. Unit No. 10, Sarni under FSA on "as is where is" basis through the window of "Build Up Period".

(v) Order for transportation of this quantity of coal on "as is where is basis" was awarded by the petitioner on 6th July, 2013, after more than four months from consent received from M/s WCL.

(vi) Vide letter No. 1171 dated 03/12/2013, the actual release of the aforesaid quantity of coal was done in December, 2013 by M/s WCL and the actual transportation was done much later than the COD of Unit No. 10 during 16/12/2013 to 23/02/2014.

(vii) Similarly, vide dated 23/09/2014, coal of 50,000 MT was provided and released by WCL for Unit No. 11 on “as is where is basis” which was transported much later than the COD of Unit No. 11 during 27/10/2014 to 13/12/2014.

(viii) The petitioner further submitted that coal received from WCL against above-mentioned 1,00,000 MT quantity was consumed on its receipt after COD. The petitioner filed the unit-wise monthly details of coal consumption and amount of coal consumed for generation of infirm power certified by the CA.

86. In view of the above observations on the submissions made by the petitioner, the following is observed:

(i) Vide letter dated 30/01/2013, MPPGCL had requested CEA for supply of coal for start up & trial run.

(ii) Vide letter dated 23/02/2013, M/s WCL had agreed to supply 50,000 MT of coal to STPS Extn. Unit No.10.

(iii) MPPGCL awarded order for transportation of coal on 6th July, 2013, after four and half months of the consent given by WCL.

(iv) No effort/follow up by MPPGCL is observed for early supply of coal till 03/12/2013.

87. With regard to the quantity of coal supplied by WCL, it is observed that the petitioner had requested for supply of 50,000 MT for each unit and WCL agreed and supply the same quantity as requested by the petitioner. In general the CEA advised Coal Companies for supply of coal for commissioning and trial run operation up to the capacity of 500 MW projects is 100000 MW. MPPGCL has consumed more quantity of Coal than the aforesaid quantity from synchronization to CoD.

88. Moreover, the unit No. 10 was synchronized on 22/02/2013 and achieved CoD on 18/08/2013. Similarly, the unit No. 11 was synchronized on 02/10/2013 and achieved CoD on 16/03/2014. Both the units achieved CoD after a period of six months approximately from date of synchronization.

89. It is also observed that the issues related to the "Infirm Power" are dealt with in Regulation 19 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012, and CERC (Unscheduled Interchange charges and related matter) 2009, replaced by CERC (Deviation Settlement Mechanism and related matters) Regulations' 2014. Further, the UI rate/ DSM charges are governed by CERC Regulations only.

90. CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014, provide the following with regard to infirm power injected into the grid by a generating unit of a generating station during testing prior to the COD of unit.

"The infirm power injected into the grid by a generating unit of a generating station during the testing, prior to COD of the unit shall be paid at Charges for Deviation for infirm power injected into the grid, consequent to testing, for a period not exceeding 6 months or the extended time allowed by the Commission in the Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access and related matters) Regulations, 2009, as amended from time to time, ***subject to ceiling of Cap rates corresponding to the main fuel (emphasis supplied)*** *used for such injection as specified below:*

Domestic coal/ Lignite/Hydro	*₹ 1.78 / kWh sent out*
APM gas as fuel	*₹ 2.82/ kWh sent out up to 31.3.2014 and thereafter, ₹ 5.64/ kWh sent out*
Imported Coal	*₹ 3.03 / kWh sent out*
RLNG	*₹ 8.24 / kWh sent out"*

91. It is evident from the above provisions that, the rates of infirm power are capped corresponding to the main fuel in case there is blending of imported coal with the domestic coal. In other words, the Generating Company is eligible to earn revenue from sale of infirm power at the rates capped for domestic coal only even if it has consumed imported coal. In order to comply with the above-mentioned Proviso under Regulation 19 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations' 2012, it is apparently clear that the expenses of main fuel (domestic coal), corresponding to which the revenue is earned by the

Generating Company, are to be considered for reduction of capital cost.

92. Therefore, in view of the above-mentioned legal framework and the facts and figures on record, the wt. average rate of domestic/Indian coal is worked out and applied for computation of coal cost in generation of infirm power from both the units on the basis of information filed by the petitioner in this regard.

93. Based on the details of the coal filed by the petitioner, the coal cost is worked out by applying the wt. average rate of domestic/Indian coal only are given below

Table No.21 -: Coal cost for generation of infirm power Allowed: ₹ Crores

Coal cost for generation of infirm power Allowed:		
Unit	**Particular**	**Indian Coal**
Unit No. 10	Quantity (MT)	176375
	Rate (₹ / MT)	**2208.42**
	Amount (₹)	389509612
Unit No. 11	Quantity (MT)	106361
	Rate (₹ / MT)	**2631.36**
	Amount (₹)	279874031
Total ₹ Crores		**66.94**

94. The capitalization details in booklets filed by the petitioner show that the petitioner has not capitalized full amount of start up fuel as on CoD of the units. Therefore, the capitalization of start up fuel at different period is considered in proportion to the actual amount capitalized by the petitioner in its books of account.

95. The details of the cost of start up fuel capitalized in books of accounts and filed by the petitioner is as given below:

Table No.22 -: Capitalized fuel cost filed : ₹ Crores

Unit No.	**Particular**	**As on COD of Unit 10**	**As on COD of Unit 11**	**As on 31/03/2014**
Unit No. 10	Net Fuel Cost Filed	110.59	110.59	110.59
	Fuel Cost Capitalized	84.72	108.97	108.97
	% of the fuel cost Capitalized	76.61	98.54	98.54
	Fuel cost in CWIP	25.87	1.62	1.62
Unit No. 11	Net Fuel Cost Filed	-	62.94	62.94
	Fuel Cost Capitalized	-	54.94	61.22
	% of the fuel cost Capitalized	-	87.29	97.27
	Fuel cost in CWIP	-	7.99	1.71

96. Details of the start up fuel allowed at different time corresponding to the amount capitalized by the petitioner in this head are as follows:

Table No. 23 -:Fuel Cost for generation of infirm power as on COD Allowed: ₹ Crores

Unit	Particular	As on COD of Unit 10	As on COD of Unit 11	As on 31/03/2014
Unit No. 10	Coal Cost	38.95	-	-
	Oil Cost	76.36	-	-
	Total Fuel Cost	**115.31**	-	-
	Revenue from infirm power	7.26	-	-
	Net Fuel Expenses	**108.05**	108.05	108.05
	Fuel expenditure capitalized	**82.77**	**106.47**	**106.47**
Unit No. 11	Coal Cost	-	27.99	-
	Oil Cost	-	40.03	-
	Total Fuel Cost	-	**68.02**	-
	Revenue from infirm power	-	9.14	-
	Net Fuel Expenses	-	**58.88**	58.88
	Fuel expenditure capitalized	-	**51.39**	**57.27**
Total net fuel expenditure for Unit No. 10 & 11		-		163.74
Net fuel expenditure for Unit No. 10 & 11 allowed		**82.77**	**157.86**	**163.74**
Expenditure considered in CWIP as on 31/03/2014				**3.19**

E. Capital Spares:

97. With regard to the capital spares, Regulation 17.1 (b) of MPERC (Terms and Conditions for determination of Generation tariff) Regulations, 2012, stated that the ceiling norms for capitalized initial spares for coal based thermal generating stations is 2.5% of the original project cost.

98. In form TPS 5B of the petition the petitioner filed an amount of ₹29.72 Crores for capitalized capital spares as on 31.03.2013. Vide letter dated 25th May, 2015, the petitioner was asked to file a detailed list of the Initial Spares capitalized along with quantity and amount, reflected in the books of accounts. The petitioner was also asked to confirm whether any mandatory initial spares were supplied by any contractor/vendor as a part of contract.

99. By affidavit dated 30th June, 2015, the petitioner submitted the list of Initial mandatory Spares as a part of contract being supplied by the respective contractors as Annexure–7 of the petition. The petitioner further confirmed that the contractors have already started supply of mandatory spares and the Spares of ₹ 29.52 Crores

have been capitalized in Books of Account till 31/03/2014, as detailed below:-

Table No. 24: (Amount in ₹)

Sr. No.	Particulars	Order Value	Spares Capitalized up to 31/03/2014
1	MPB	328500000	67339410
2	BoP	332320000	225901208
3	Weigh Bridge	2000000	2000000
	Total	**662820000**	**295240618**

100. In view of the above, it is observed that the capital spares capitalized as on 31st March, 2014, are within the norms of capital spares prescribed under the Regulations, 2012. Therefore, the same is allowed in this order. The details of the capital cost as on respective COD of unit No. 10 & 11 and additional capitalization till 31st March, 2015, considered in this order are as given below:

Particular	as on COD of Unit No. 10	as on COD of Unit No. 11	as on 31st March, 2014
Initial Spares	₹ 14.11 Crores	₹ 29.52 Crores	₹ 29.52 Crores

Details of Capital cost for Unit No. 10 and 11 as on respective COD of units:

Table No. 25 -: ₹ Crores

Sr. No.	Particular	as on COD of Unit No. 10	as on COD of Unit No. 11	Total
1	Hard Cost including plant and Machinery and Civil cost	907.66	1018.62	1926.28
2	IDC and Financing Charges	156.71	234.48	391.19
3	Cost of Start-up Fuel	82.77	51.39	134.16
4	Other Soft Cost	30.87	35.5	66.373
5	Total Capital Cost of Unit No. 10	**1178.02**	**1340.04**	**2518.06**

Break-up of Capital cost for Unit No. 10 &11 as on respective COD of Units:

Table No.-26 -: ₹ Crores

Sr. No.	Particular	Unit No. 10	Unit No. 11	Total Unit No. 10 &11
1	Land & Site Development	40.20	40.33	80.53
2	Plant & Equipment	378.86	399.12	777.98
3	BOP Mech. & Elect.	132.68	172.98	305.66
4	C&I Package	17.43	22.33	39.76
5	Plant & Equp. excluding taxes & Duties	528.96	594.43	1123.39
6	Taxes & Duties	42.07	45.75	87.82
	Plant & Equipment incl. taxes & duties	571.03	640.18	1211.21

7	Initial Spares	14.11	14.67	28.78
8	Civil works along with Railway siding	222.72	255.64	478.36
	Total Hard Cost	**848.06**	**951.05**	**1799.11**
9.1	Start up Fuel net of rev. from infirm power	82.77	51.39	134.17
9	Construction & Pre Comm. Expenses	157.20	136.24	293.45
10	Overheads	16.05	18.27	34.32
11	Capital cost excluding IDC & FC	1021.31	1105.56	2126.88
12	IDC, FC, FERV & Hedging Cost	156.71	234.48	391.19
	Capital cost including IDC, FC, etc.	**1178.02**	**1340.04**	**2518.06**

F. Additional Capitalization:

Provision under Regulation:

101. Regarding additional capitalization of the project, Regulation 20 of the MPERC (Terms and conditions for determination of Generation tariff) Regulations, 2012, provides as under:

"The capital Expenditure Incurred or projected to be Incurred, on the following counts within the original scope of work, after the Date of Commercial operation and up to cut-off date may be admitted by the Commission, subject to prudent check:

(a) Undischarged liabilities

(b) Works deferred for execution

(c) liabilities to meet award of arbitration or for compliance of order or decree of a court,

(d) Change in Law,

(e) Procurement of initial capital spares within the original scope of work, subject to the provisions of Regulation 17.1(b)

Provided that the details of works included in the original scope of work along with estimates of expenditure, un-discharged liabilities and works deferred for execution shall be submitted along with the application for Tariff.

The capital expenditure of the following nature actually incurred on the following counts after the Cut off date may, in its discretion, be admitted by the Commission, subject to prudent check:

(a) liabilities to meet award of arbitration or for compliance of the order or decree of a court;

(b) Change in Law.

(c) Deferred works relating to ash pond or ash handling system in the original scope of work;

(d) ---------

Petitioner Submission:

102. *The petitioner filed the Additional Capital Expenditures subsequent to COD of respective units, actually incurred in FY 2013-14, provisional expenditure for FY 2014-15 and the projected expenditure for FY 2015-16 are as given below:*

Addl. Capital Expenditure filed for 2X250 MW STPS, Extn. Units No. 10 & 11

Table No. 27 -: ***(Amount in ₹ Crores.)***

Unit No.	*FY14*			*Addl. Capital expenditure in FY15*	*Addl. Capital expenditure in FY16*	*Total addl. Capital expenditure after respective CODs*	*Total Capital expenditure till project completion*
	Capital expenditure Till respective COD	*Addl. Capital expenditure after respective COD*	*Total Capital expenditure Till 31/03/2014*				
10	*1551.51*	*27.01*	***1578.52***	*32.14*	*131.85*	*191.00*	*1742.51*
11	*1584.80*	*3.62*	***1588.42***	*32.57*	*149.96*	*186.15*	*1770.96*
Total	*3136.31*	*30.63*	***3166.94***	***64.71***	***281.81***	***377.15***	***3513.47***

103. *The petitioner further submitted that the projected additional capital expenditure up to the Cut-off Date is within the original scope of works of the Project and is in accordance with regulations 20.1 of MPERC Tariff regulations 2012. Such expenditure estimated by the petitioner may not be considered as the ceiling expenditure and that the Petitioner may be allowed to claim/amend the impact of additional capitalization for revision of tariff.*

Commission's Analysis:

104. With regard to the additional capitalization of the project, the Commission observed that the amount claimed under additional capitalization of Unit No. 10 & 11 during FY 2013-14 are the actual capital expenditure and these expenditure are not fully capitalized in the books of accounts. Vide letter dated 25th May, 2015, the petitioner was asked to submit the details of additional capitalization in terms of Regulation 20.1 of MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2012. The petitioner was also asked to file a comprehensive reply to the following issues with all relevant supporting documents in favor of its claim for

additional capitalization:

- Whether the addition of asset is on account of the reasons (a) to (e) in clause 20.1 of the Regulations, 2012.
- Whether the assets capitalized during the year are under original scope of work. Supporting documents be also filed in this regard.

105. By affidavit dated 30th June, 2015, the petitioner submitted the following:

"As per the audited books of accounts of MPPGCL for FY14, the actual additional capital expenditure for Unit No. 10 w.e.f. it's COD (18/08/2013) till the COD of Unit No. 11 (16/03/2014) is ₹ 23.47 Crores. Similarly, the actual additional capital expenditure for Units 10 & 11 subsequent to the station COD (16/03/2014) and up to 31/03/2014 is ₹7.16 Crore (₹3.54 Crore for Unit No. 10 and ₹ 3.62 Crore for Unit No. 11). Provisional figure for additional capital expenditure for the two Units during FY15 is ₹ 64.71 Crore. Projected expenditure on balance works and liabilities during FY16, till project completion, is ₹281.81 Crore.

The projected additional capital expenditure up to FY16, as submitted above, is within the original scope of works of the Project and is on account of the reasons (a) to (e) in clause 20.1 of the Regulations, 2012.

106. The petitioner filed the capitalization booklet incorporating the details of assets capitalization and assets under CWIP certified by the chartered accountants. The details of the assets under additional capitalization capitalized in books of accounts for FY 2013-14 as per capitalization booklet for the unit No. 10 and 11 are as follows:

(i) **Additional capital expenditure of Unit No. 10 as per capitalization booklet certified by the Chartered Accountant:**

Table No. 28 -: **Amount in ₹ Crores**

Sr. No.	Particular	From COD of Unit 10 to COD of Unit 11	From COD of Unit No. 11 to 31/03/2013	Total as on 31/03/2014
1	Hard Cost including P&M and Civil cost	262.65	0.81	263.46
2	IDC and Financing Charges	49.89	0.00	49.89
3	Cost of Start-up Fuel	24.26	0.00	24.26
4	Other Soft Cost	8.24	0.00	8.24
5	**Total Capital Cost of Unit No. 10**	**345.04**	**0.81**	**345.85**

(ii) **Additional capital expenditure of Unit No. 11 as per capitalization booklet certified by the Chartered Accountant:**

Table No. 29 -: Amount in ₹ Crores

Sr. No.	Particular	From COD of Unit No. 11 to 31/03/2014	Total as on 31/03/2014
1	Hard Cost including P&M and Civil cost	116.06	116.06
2	IDC and Financing Charges	29.97	29.97
3	Cost of Start-up Fuel	6.28	6.28
4	Other Soft Cost	3.77	3.77
5	**Total Capital Cost as on CoD**	**156.08**	**156.08**

(iii) **Total additional capital expenditure of Unit 10&11 as on 31/03/2014 as per books of a/c and recorded in the capitalization booklet certified by the Chartered Accountant:**

Table No. 30 -: Amount in ₹ Crores

Sr. No.	Particular	As on COD of Unit No. 11	From COD of Unit No. 11 to 31/03/2014	Total as on 31/03/2014
1	Hard Cost including plant and Machinery and Civil cost	262.65	116.87	379.52
2	IDC and Financing Charges	49.89	29.97	79.86
3	Cost of Start-up Fuel	24.26	6.28	30.54
4	Other Soft Cost	8.24	3.77	12.01
5	**Total Capital Cost as on CoD**	**345.04**	**156.89**	**501.93**

107. The Commission has examined the additional capitalization in terms of the provision under Regulations, 2012. On perusal of the details and documents filed by the petitioner, the Commission observed the following:

(i) The petitioner confirmed that the works covered under additional capitalization are within the original scope of work.

(ii) The figures for FY 2013-14 are based on the annual audited accounts. The figures for FY 2014-15 are on provisional basis and for FY 2015-16 are on projected basis.

(iii) The expenditure incurred within the Cut-off date of the project

(iv) The expenditure are mainly pertains to works deferred for its execution and capitalization in books of accounts.

(v) In table 8.4.1 of the petition, the petitioner filed actual assets additions of ₹ 345.03 Crores and ₹ 156.89 Crores from COD of unit No. 10 to COD of unit No. 11 and till

31/03/2014 respectively, based on books of accounts.

108. In view of the above, the Commission has considered the additional capitalization in different heads to the extent of cost admitted in this order and proportionately capitalized in the books of accounts for FY 2013-14, in accordance with the Regulation 20.1 of the Regulations, 2012. The details of additional capitalization considered in this order are as given below:

A. Break-up as per capitalization book let certified by the Chartered Accountant's:

(i) **Details of Additional Capitalization for Unit No. 10 considered as per books of a/c for FY 2013-14:**

Table No. 31 -: **Amount in ₹ Crores**

Sr. No.	Particular	From COD of Unit No. 10 to COD of Unit No. 11	From COD of Unit No. 11 to 31/03/2014	Total as on 31/03/2014
1	Hard Cost including plant and Machinery and Civil cost	262.65	0.81	263.46
2	IDC and Financing Charges	42.54	0.00	42.54
3	Cost of Start-up Fuel	23.70	0.00	23.70
4	Other Soft Cost	8.24	0.00	8.24
5	**Total Add. Cap. of Unit No. 10**	**337.11**	**0.81**	**337.94**

(ii) **Details of Additional Capitalization for Unit No. 11 considered as per books of a/c for FY 2013-14:**

Table No. 32 -: **Amount in ₹ Crores**

Sr. No.	Particular	From COD of Unit No. 11 to 31/03/2014	Total as on 31/03/2014
1	Hard Cost including plant and Machinery and Civil cost	116.06	116.06
2	IDC and Financing Charges	25.55	25.55
3	Cost of Start-up Fuel	5.88	5.88
4	Other Soft Cost	3.76	3.76
5	**Total Add. Cap. of Unit No. 11**	**151.25**	**151.25**

(iii) **Total Additional Capitalization for Unit No. 10 &11 considered in this order as per books of a/c for FY 2013-14:**

Table No. 33 -: **Amount in ₹ Crores**

Sr. No.	Particular	As on COD of Unit No. 11	From COD of Unit No. 11 to 31/03/2014	Total as on 31/03/2014
1	Hard Cost including plant and Machinery and Civil cost	262.65	116.87	379.52
2	IDC and Financing Charges	42.54	25.55	68.09
3	Cost of Start-up Fuel	23.70	5.88	29.58
4	Other Soft Cost	8.24	3.76	12.00
5	**Total Capital Cost as on CoD**	**337.11**	**152.06**	**489.17**

B. Components wise Break-up of Add. Cap. allowed in this order:

(i) **Break-up of Additional Capitalization of Unit No. 10 from its COD to 31/03/2014 allowed in this order:**

Table No. 34 -: **Amount in ₹ Crores**

Sr. No.	Particular	From COD of Unit 10 to COD of Unit 11	From COD of Unit No. 11 to 31/03/2014	Total till 31/03/2014
1.	**Land & Site Development**	1.37	0.00	1.37
2.	Plant & Equipment	74.71	0.00	74.71
3.	BOP Mechanical & Electrical	98.49	0.00	98.49
4.	MPB+BoP C&I	13.12	0.00	13.12
5	Plant & Equp. excluding taxes & Duties	186.32	0.00	186.32
6.	Taxes & Duties	10.13	0.00	10.13
	Total Plant & Equp. incl. taxes & duties	**196.45**	**0.00**	**196.45**
7.	Initial Spares	0.76	0.00	0.76
8.	Civil works along with Railway siding	50.91	0.68	51.59
9.1	Start up Fuel	23.70	0.00	23.70
9.	Construction & Pre Comm. Expenses	40.82	0.13	40.95
10	Overheads	4.28	0.00	4.28
11.	**Capital cost excluding IDC & FC**	**294.59**	**0.81**	**295.40**
12.	**IDC, FC, FERV etc. Hedging Cost**	**42.54**	**0.00**	**42.54**
Capital cost including IDC, FC, FERV & etc.		**337.11**	**0.81**	**337.94**

(ii) **Break-up of Additional Capitalization of Unit No. 11 from its COD to 31/03/2014 allowed in this order:**

Table No. 35 -: **Amount in ₹ Crores**

Sr. No.	Particular	From COD to 31/03/2014	Total till 31/03/2014
1.	Land & Site Development	0.00	0.00
2.	Plant & Equipment	29.01	29.01
3.	BOP Mechanical & Electrical	58.19	58.19
4.	Control & Instrumentation	7.62	7.62
5	Plant & Equip. excluding taxes & Duties	94.82	94.82
6.	Taxes & Duties	4.07	4.07
	Total Plant & Equipment including taxes & duties	**98.89**	**98.89**
7	Initial Spares	0.00	0.00
8.	Civil works along with Railway siding	14.07	14.07
9.1	Start up Fuel	5.88	5.88
9.	Construction & Pre Comm. Expenses	10.78	10.78
10	Overheads	1.96	1.96
11.	**Capital cost excluding IDC & FC**	**125.70**	**125.70**
12	**IDC, FC, FERV & Hedging Cost**	**25.55**	**25.55**
	Capital cost including IDC, FC, FERV & etc.	**151.25**	**151.25**

Summary of capital cost and additional capitalization allowed in this order:

109. The summary of the capital cost as on COD of unit No. 10 & 11 and additional capitalization till 31st March, 2014 considered in this order are as given below:

Table No. 36 -:

(i) **Details of Capital cost of Unit No. 10 allowed as per Books of Accounts:**

Sr. No.	Particular	Unit	As on COD of Unit No. 10	As on COD of Unit No. 11	As on 31/03/2014
1	Hard Cost including plant and Machinery and Civil cost	₹ Crores	907.66	1170.31	1171.12
2	IDC and Financing Charges	₹ Crores	156.71	199.25	199.25
3	Cost of Start-up Fuel	₹ Crores	82.77	106.47	106.47
4	Other Soft Cost	₹ Crores	30.873	39.11	39.11
5	Total Capital Cost of Unit No. 10	₹ Crores	**1178.02**	**1515.13**	**1515.94**

Table No. 37 -:

(ii) **Details of Capital cost of Unit No. 11 allowed in this order:**

Sr. No.	Particular	Unit	As on COD of Unit No. 11	As on 31/03/2014
1	Hard Cost including plant and Machinery and Civil cost	₹ Crores	1018.62	1134.68
2	IDC and Financing Charges	₹ Crores	234.48	260.03
3	Cost of Start-up Fuel	₹ Crores	51.39	57.27
4	Other Soft Cost	₹ Crores	35.50	39.26
5	Total Capital Cost of Unit No. 11	₹ Crores	**1340.00**	**1491.25**

Table No. 38 -:

(iii) **Details of Capital cost of Unit No. 10 & 11 allowed in this order:**

Sr. No.	Particular	Unit	As on COD of Unit No. 10	As on COD of Unit No. 11	As on 31/03/2014
1	Hard Cost including plant and Machinery and Civil cost	₹ Crores	907.66	2188.94	2305.80
2	IDC and Financing Charges	₹ Crores	156.71	433.73	459.28
3	Cost of Start-up Fuel	₹ Crores	82.77	157.86	163.74
4	Other Soft Cost	₹ Crores	30.87	74.60	78.37
5	Total Capital Cost of Unit 10&11	₹ Crores	**1178.02**	**2855.13**	**3007.19**

Summary of Capital cost and Additional Capitalization of Unit No. 10 & 11 allowed in this order

Table No. 39 -: (Amount in ₹ Crores)

Sr. No.	Particular	18.08.2013 to 16.03.2014	17.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
		Unit No.10	Unit No. 10 & 11	Unit No. 10 & 11	Unit No. 10 & 11
1	Opening Capital Cost	1178.02	1515.13	3007.19	3007.19
2	Capitalization on 17.03.2014 due to COD of Unit 11		1340.00	0.00	0.00
3	Opening Capital Cost as on 17.03.2014 (COD of Unit 11)		2855.13	3007.19	3007.19
4	Addition during the year	337.11	152.06	0.00	0.00
5	Closing Capital Cost	1515.13	3007.19	3007.19	**3007.19**

Debt : Equity Ratio and Funding of project cost and Add. Capitalization:

Petitioner Submission:

110. *The petitioner filed the actual project funding as on the COD of Unit No. 10 (18/08/2013), as on COD of Unit No. 11 (16/03/2014), as at the end of FY14 (as on 31/03/2014) and that during FY2014-15 (provisional) and during FY2015-16 (projected), till completion of balance works, as given below:*

Table No. 40- : ***Details of Project Funding (Amount in Cr. ₹)***

Particulars		***Unit No. 10***	***Unit No. 11***	***Total***
Till COD of Unit No. 10	*Debt*	*1101.71*	*988.50*	***2090.21***
	Equity	*310.96*	*279.01*	***589.96***
	Total	***1412.66***	***1267.51***	***2680.17***
Till COD of Unit No.11	*Debt*	*1212.60*	*1220.16*	***2432.77***
	Equity	*287.60*	*289.39*	***577.00***
	Total	***1500.20***	***1509.56***	***3009.76***
Till 31/03/2014	*Debt*	*1225.92*	*1233.61*	***2459.52***
	Equity	*296.05*	*297.90*	***593.95***
	Total	***1521.96***	***1531.51***	***3053.47***
Till 31/03/2015	*Debt*	*1258.92*	*1267.04*	***2525.96***
	Equity	*287.62*	*289.37*	***576.99***
	Total	***1546.54***	***1556.41***	***3102.95***
Till 31/03/2016	***Debt***	***1392.17***	***1418.61***	***2810.77***
	Equity	***346.43***	***356.26***	***702.69***
	Total	***1738.60***	***1774.86***	***3513.47***

111. *Ratio of loan and equity drawls as on the COD of Unit 10 is 78 - 22 and as on COD of Unit 11 is 81 - 19 respectively till 31/03.2015. The debt-equity ratio thereafter till 31/03/2016 filed by the petitioner is 80 – 20 as approved by GoMP.*

Provision Under Regulations:

112. 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."

Commission's Analysis:

113. With regard to funding of the project, the petitioner submitted the following:

i. *The approved financing for the project is in the ratio of 80:20. 80% is through loan and 20% through equity, i.e., ₹ 2811.20 through loan and ₹ 702.80 Crore through equity, respectively. M/s PFC is the lending agency for loan and GoMP has funded the equity part.*

ii. *Out of the total approved equity amount of ₹ 702.80 Crore an amount of ₹681.20 Crore has so far been sanctioned by the GoMP. GoMP shall be approached to sanction the balance equity amount of ₹ 21.60 Crore as and when required.*

iii. *PFC had initially sanctioned a loan (No. 20701003) amounting to ₹ 1878.20 Crore, vide sanction letter dated 31/03/2008. Subsequently, in view of the revisions in the Project Cost Estimate, the aforesaid loan has been enhanced by an amount of ₹ 422.00 Crore vide PFC sanction letter dated 25/03/2010 and then by an amount of ₹ 431.56 Crore vide PFC sanction letter dated 22/11/2013.*

iv. *Thus, as on date the total sanctioned funding for 2X250 MW STPS Extn. Unit No. 10 & 11 is ₹ 2731.76 Crore through PFC loan and ₹ 681.20 Crore through GoMP equity, respectively. M/s PFC has been requested to sanction the balance loan amount.*

v. *Out of the aforesaid sanctioned equity amount of ₹ 681.20 Crore, an amount of ₹ 596.20 Crore has been released by GoMP, till date. Out of the released Equity amount of ₹ 596.20 Crore, funding to the tune of ₹ 593.95 Crore was done for the project through Equity as on 31/03/2014. Total equity funding till*

31/03/2015 is ₹576.99 Crore. An amount of ₹16.96 Crore which was earlier paid through Equity funding has been refunded during FY15 and the same amount has been released by PFC through loan funding.

vi. *Out of the sanctioned PFC loan amount of ₹2731.76 Crore, funding to the tune of ₹2459.52 Crore has been done for the project till 31/03/2014. Total funding through PFC loan till 31/03/2015 is ₹2525.96 Crore.*

vii. *Actual project funding as on the COD of Unit No. 10 (18/08/2013), as on COD of Unit No. 11 (16/03/2014), as at the end of FY14 (as on 31/03/2014) and that during FY15 (provisional) and during FY16 (projected), till completion of balance works, is elaborated in the petition. Ratio of loan and equity drawls as on the COD of Unit 10 and COD of Unit 11, respectively, and thereafter till 31/03/2016 are 78 : 22, 81 :19 and 80 : 20 respectively.*

114. The petitioner submitted that the Funding of the project is being done through PFC Loan and GoMP Equity in 80:20 ratio, as approved by GoMP, vide Energy Department letter dated 25/06/2007. The funding pattern as approved by GoMP and its present status for the estimated completed project cost of ₹ 3514 Crores as filed by the petitioner is indicated in the table below:

Table No. 41 -: Project Funding Pattern

Particulars	Amount (₹ Crores)	% of Assets
Loan		
Loan sanctioned from PFC (Loan No. 20701003)	2731.76	77.74
Balance Loan (PFC has been requested)	79.44	2.26
Total Loan	**2811.20**	**80.00**
Equity		
Equity sanctioned from GOMP	681.20	19.39
Balance Equity (GoMP would be requested)	21.60	0.61
Total Equity	**702.80**	**20.00**
Total Finance (Loan + Equity)	**3514.00**	**100.00**

115. The petitioner mentioned that out of the total equity amount of ₹ 702.80 Crores, i.e., 20% of the present day approved estimate of ₹ 3514 Crores, equity amount of ₹681.20 Crores has so far been sanctioned by the GoMP. Out of the aforesaid sanctioned amount, an amount of ₹ 596.20 Crores has been released by GoMP till date. The petitioner field the copy of GoMP's equity released letter for the project. In para 3.4 of the petition, the petitioner filed a statement showing the date wise equity

amount released by GoMP.

116. In form TPS 5B of the petition, the petitioner filed quarterly draw-down schedule of the loan and equity amount incurred in the project till 31st March, 2014.

117. The Commission has considered debt-equity ratio of 80-20 as approved by GoMP for this project. This funding ratio is applied on the assets admitted in this order and capitalized in annual audited accounts for FY 2013-14. The details of the funding considered for the assets admitted in this order are as given below:

Table No. 42 : Funding of capital cost and additional capitalization: ₹ Crores

Sr. No.	Particular	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
		Unit No.10	**Unit No. 10 & 11**	**Unit No. 10 & 11**	**Unit No. 10 & 11**
1	Opening Loan	**942.42**	1212.10	2405.75	2405.75
2	Opening Loan amount due to Capitalization of Unit No. 11		1072.00	0.00	0.00
3	Opening Loan as on 17.03.2014		2284.10	2405.75	2405.75
4	Addition in loan	269.69	121.65	0.00	0.00
5	Closing Loan	1212.10	2405.75	2405.75	2405.75
6	Opening Equity	235.60	303.03	601.44	601.44
7	Opening Equity amount due to Capitalization of Unit No. 11		268.00	0.00	0.00
8	Opening Equity as on 17.03.2014		571.03	601.44	601.44
9	Addition in Equity	67.42	30.41	0.00	0.00
10	Closing Equity	303.03	601.44	601.44	**601.44**

Annual Capacity (fixed) Charges:

118. 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) Lease/Hire Purchase Charges;
(e) Operation and Maintenance Expenses;
(f) Interest Charges on Working Capital;
(g) Cost of Secondary Fuel Oil;
(h) Special allowance in lieu of R&M or separate compensation allowance, wherever applicable:

A. Return on Equity:

119. Regulation 22 of the Regulations, 2012 provides that,

"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 of this Regulation.

Illustration.-

(i) In case of Generating Company paying Minimum Alternate Tax (MAT) say @ 20.01% including surcharge and cess:

Rate of return on equity = 15.50/ (1-0.2001) = 19.377%

(ii) In case of Generating Company paying normal corporate tax say @ 33.99% including surcharge and cess: Rate of return on equity = 15.50/ (1-0.3399) = 23.481%."

120. The petitioner claimed Return on Equity (RoE) for the period FY 2013-14 to FY 2015-16 on the pre-tax basis at the base rate of 15.5% without grossing up with the tax rate. The amount of annual ROE claimed by the petitioner is as given below:

Table No. 43 -: Amount in ₹ Crores

Particular	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
Annual Return on Equity	46.39	90.75	90.75	99.18

121. On scrutiny of the petition the Commission observed that the opening equity for unit No. 10 was considered as ₹ 310.96 Crores which is 25.76% of the opening GFA whereas the petitioner in the subject petition mentioned that the Debt – Equity ratio as on CoD of unit No. 10 is 78 : 22. Vide Commission's letter dated 25th May, 2015, the petitioner was asked to file the reason for the aforesaid variation in its contention.

122. By affidavit dated 30th June, 2015, the petitioner submitted that the funding through Loan and Equity filed in the Petition, as on different milestone dates, is on actual disbursement basis and the same is in line with the Regulations 2012. The petitioner further submitted that the Return on the equity has been claimed in the Petition on the paid up equity capital in accordance to Regulation 22 of the MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012. The Debt-Equity Ratio of 78:22 as on COD of Unit No. 10 is on actual disbursement basis of loan and equity.

123. The petitioner mentioned that the debt-equity ratio approved by GoMP for the project is 80:20. Out of the total equity amount of ₹ 702.80 Crores, i.e., 20% of the present day approved estimate of ₹ 3514 Crores, equity amount of ₹ 681.20 Crores has so far been sanctioned by the GoMP and an amount of ₹ 596.20 Crores has

been released by GoMP till date. The petitioner filed the statement showing date-wise equity amount released by GoMP from FY 2006-07 to FY 2013-14 for the project.

124. The Commission observed that the details of the project funding and debt-equity ratio filed by the petitioner in its petition vis-à-vis additional submission, is for the total expenditure instead of assets capitalized in books of accounts for that period. Therefore, while determining the equity component of the project, the Commission has considered the debt-equity ratio of 80:20 as approved by GoMP for this project.

125. The equity amount as on CoD of unit No. 10, as on CoD of unit No. 11 and as on 31st March, 2014, as worked out in para 117 of this order, is only to the extent of the assets admitted in this order and capitalized in books of accounts. Details of the equity amount worked out and considered in this order are as given below:

Table No. 44 -: The details of the equity considered: ₹ Crores

Sr. No.	Particular	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
		Unit No.10	Unit No. 10 & 11	Unit No.10 & 11	Unit No.10 & 11
1	Opening Equity	235.60	303.03	601.44	601.44
2	Opening Equity due to Capitalization of Unit No. 11		268.00	0.00	0.00
3	Opening Equity as on 17.03.2014		571.03	601.44	601.44
4	Addition in Equity	67.42	30.41	0.00	0.00
5	Closing Equity	303.03	601.44	601.44	601.44

126. Based on the capital cost and additional capitalisation of the project as considered in this order, the Commission has computed the Return on Equity in accordance with Regulation 22 of the Regulations, 2012. The Commission has determined the Return on Equity on pre-tax basis at the base rate of 15.50% without grossing up it by any tax rate because MPPGCL has not paid any tax as per the books of accounts.

127. Accordingly, the annual return on equity is worked out as given below:

Table No.45 -: Return on Equity:

Sr. No.	Particular	Unit	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
			Unit No.10	Unit No. 10 & 11	Unit No. 10 & 11	Unit No. 10 & 11
1	Opening Equity	₹ Cr.	235.60	571.03	601.44	601.44
2	Equity addition during the year	₹ Cr.	67.42	30.41	0.00	0.00
3	Closing Equity	₹ Cr.	303.03	601.44	601.44	601.44
4	Average Equity	₹ Cr.	269.31	586.23	601.44	601.44
5	Base rate ROE	%	15.50	15.50	15.50	15.50
6	Applicable tax rate	%	0.00	0.00	0.00	0.00
7	Rate of return on equity	%	15.50	15.50	15.50	15.50
8	**Annual Return on Equity**	**₹ Cr.**	**41.74**	**90.87**	**93.22**	**93.22**

B. Interest and Financing Charges on Loan Capital:

Provision under Regulations:

128. Regulation 23 of MPERC (Terms and Conditions for determination of Generation tariff) Regulation, 2012, provides that,

"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 ------:*

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.

The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing. ---------"

129. The petitioner filed Interest and Finance Charges for the period of FY 2013-14 to FY 2015-16 by considering depreciation for the period equal to repayment in accordance to the Regulations, 2012, and applied wt. average rate of interest for the respective year. The annual interest on loan claimed by the petitioner is as given below:

Table No. 46 -:

Particular	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
Annual Interest on Loan (₹ Cr.)	147.39	311.44	306.31	306.91

130. On scrutiny of the petition, it was observed that the opening loan of ₹ 1101.71 Crores for Unit No. 10 is considered by the petitioner which is 91% of the assets capitalized and pertain to Unit No. 10 as on its COD. Vide letter dated 25th May, 2015, the petitioner was asked to clarify this issue. The petitioner was also asked to file detailed calculations for working out the year-wise weighted average rate of interest along with supporting documents.

131. By affidavit dated 30th June, 2015, the petitioner submitted the following:

"*The funding through Loan and Equity submitted in the Petition as on different milestone dates is on actual disbursement basis and the same is in line with the MPERC Tariff Regulations 2012. In the petition the Interest and Finance Charges on Loan Capital have been calculated on the actual loan outstanding as on respective dates in accordance to regulation 23 of the MPERC Tariff Regulations 2012. The detailed calculations for working out the year-wise weighted average rate of interest after COD along with* *supporting documents have already been submitted as Annexure-63 with the Petition."*

132. In the petition, the petitioner mentioned that the project is being funded through PFC loan and GoMP equity in the ratio of 80:20 as approved by GoMP. The petitioner further mentioned that the loan amount sanctioned from PFC under the loan scheme No. 20701003 is ₹ 2731.76 Crores and the PFC has been requested for the balance loan amount of ₹ 79.44 Crores. The details of the loan sanctioned so far by M/s PFC for the project as filed by the petitioner is as given below:

(i) *PFC had initially sanctioned a loan (No. 20701003) amounting to ₹ 1878.20 Crores, vide sanction letter dated 31/03/2008 for setting up of STPS Extn. Units No. 10 & 11 (2X250MW) against the initial project cost estimate of ₹2350 Crore.*

(ii) *Subsequently, in view of the revised project cost estimate of ₹ 3032.34 Crores, this loan has been enhanced by an amount of ₹ 422 Crore, vide PFC sanction letter dated 25/03/2010.*

(iii) *The aforesaid loan was once again enhanced by M/s PFC, vide their sanction letter dated 22/11/2013 by a an amount of ₹ 431.56 Crores based on the revised project cost of ₹ 3265 Crore.*

(iv) *Balance loan funding, with reference to the revised project cost estimate of ₹3514 Crores, is ₹ 79.44 Crores and the same is yet to be tied-up.*

133. On perusal of the details of the funding and debt-equity ratio filed in the petition, it is observed that the petitioner filed the funding details of expenditure instead of assets capitalized in books of accounts. Therefore, while determining the loan component of the project, the Commission has considered the debt-equity ratio of 80:20 as approved by GoMP for this project.

134. The draw-down schedule filed with the petition indicated that the total loan amount of ₹2459.52 Crores released so far by PFC and the petitioner has incurred the loan amount of ₹ 2459.52 Crores on the project as on 31st March, 2014. The petitioner filed the details of quarterly infusion of loan in this regard.

135. With regard to the wt. average rate of interest, the petitioner filed calculation sheet in support of wt. average rates of interest of loan No. 20701003 for the project. On detailed scrutiny of the loan drawl and interest charged by the lender, it is found that

the wt. average rate of interest for FY 2014-15 is 12.94% as compared to 12.97% claimed by the petitioner. Accordingly, for FY 2013-14, the rate of interest of 12.97% (based on actual loan portfolio at the beginning of the year) is considered in accordance with the provisions of the Regulations, 2012. For FY 2014-15 and FY 2015-16, the wt. average rate of interest of 12.94% is considered subject to true up based on annual audited accounts.

136. The loan amount as on CoD of unit No. 10, as on CoD of unit No. 11 and as on 31st March, 2014, is worked out in para 117 of this order as given below:

Table No. 47 -: Loan amount considered in this order

Sr. No.	Particular	Unit	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
			Unit No.10	Unit No. 10 & 11	Unit No. 10 & 11	Unit No. 10 & 11
1	Opening loan	₹ Cr.	942.42	1212.10	2405.75	2405.75
2	Opening Loan amount due to Capitalization of Unit No. 11	₹ Cr.		1072.00	0.00	0.00
3	Opening Loan as on 17.03.2014 (CoD of unit 11)	₹ Cr.		2284.10	2405.75	2405.75
4	Addition in loan	₹ Cr.	269.69	121.65	0.00	0.00
5	Closing Loan	₹ Cr.	1212.10	2405.75	2405.75	2405.75

137. Based on the capital cost and the additional capitalisation admitted in this order, the Commission has computed the interest charges on Long Term loan considering the debt component of 80% as approved by GoMP in accordance with the provisions of the Regulations, 2012.

138. Further, in accordance with the provisions of the Regulations, 2012, the Commission has considered the annual repayment equivalent to the depreciation allowed for the year. Based on the loan balances as worked out above and weighted average rate of interest considered in this order on actual loan portfolio, the interest on loan is worked out as given below:

Table No. 48-: Interest on Loan:

Sr. No.	Particular	Unit	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
			Unit No.10	Unit No. 10 & 11	Unit No. 10 & 11	Unit No. 10 & 11
1	Opening Loan	₹ Cr.	942.42	2284.10	2399.03	2241.76

2	Loan addition during the year	₹Cr.	269.69	121.65	0.00	0.00
3	Repayment during the year	₹Cr.	40.44	6.72	157.28	157.28
4	Closing Loan	₹Cr.	1171.66	2399.03	2241.76	2084.48
5	Average Loan	₹Cr.	1057.04	2341.57	2320.39	2163.12
6	Wt. average rate of interest	%	12.97	12.97	12.94	12.94
7	**Annual interest on Loan**	**₹Cr.**	**137.10**	**303.70**	**300.26**	**279.91**

C. Depreciation:

139. Regulation 24 of MPERC (Terms and Conditions for determination of Generation tariff) Regulation, 2012 provides that,

"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% ---------.*

(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."*

140. The annual depreciation amount claimed by the petitioner is as given below:

Table No. 49 -: Amount in ₹ Crores.

Particular	**18.08.2013 to 15.03.2014**	**16.03.2014 to 31.03.2014**	**01.04.2014 to 31.03.2015**	**01.04.2015 to 31.03.2016**
Annual Interest on Loan	72.04	157.65	165.46	176.45

141. The petitioner submitted that at the end of FY2013-14, an amount of ₹ 3093.09 Crores has been capitalized as against the total capital expenditure of ₹ 3166.94 Crores till 31/03/2014. Thus, 97.67% of the total expenditure as on 31/03/2014 has been capitalized as on 31/03/2014. Considering full capitalization during FY2014-15, the gross block in fixed assets at the end of FY2014-15 is considered as ₹3231.66 Crores. The petitioner mentioned that for FY2015-16 it is assumed that 100% of the capital expenditure i.e., ₹ 3513.47 Crores, shall be capitalized by the end of FY2015-16. Thus, the projected GFA of ₹3513.47 Crores as on 31/03/2016 is considered by the petitioner.

142. With regard to to weighted average of depreciation, the petitioner submitted that the effective rate of depreciation on annual basis as per audited books of accounts is worked out to 5.22 % in FY2013-14, w.e.f. COD of Unit No. 10 till the COD of Unit No. 11/ Station COD (16/03/2014). Thereafter, the effective rate of depreciation is worked out to be 5.23% w.e.f Station COD till 31/03/2014. Same rate of depreciation (5.23%) has been considered for FY2014-15 and FY2015-16.

143. The Commission has prorated the approved GFA under various heads in the same proportion as capitalized by the petitioner in its books of accounts. The details of the capital cost and additional capitalization, as worked out and considered by the Commission, is mentioned in para 109 of this order:

144. The rate of depreciation filed by the petitioner was appearing on higher side. Vide Commission's letter dated 25th May, 2015, the petitioner was asked to file the reason for claiming higher rate of depreciation in the petition.

145. By affidavit dated 30th June, 2015, the petitioner submitted that the wt. average rate of depreciation has been arrived on the basis of the rates specified in Tariff Regulations, 2012 and the value of gross fixed assets on respective milestone dates as the per audited books of accounts. The same has also been audited by the Statutory Auditor and checked by AG team during Supplementary Audit of the accounts for FY 2013-14.

146. Based on the capital cost and additional capitalisation as allowed in this order, the Commission has computed the depreciation in accordance with the MPERC Regulations, 2012 as given below:

Table No.50 -: Depreciation:

Sr. No	Particular	Unit	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
			Unit No.10	Unit No. 10 & 11	Unit No. 10 & 11	Unit No. 10 & 11
1	Opening Capital Cost	₹ Cr.	1178.02	2855.13	3007.19	3007.19
2	Assets addition during the year	₹ Cr.	337.11	152.06	0.00	0.00
3	Closing Capital Cost	₹ Cr.	1515.13	3007.19	3007.19	3007.19
4	Average Capital Cost	₹ Cr.	1346.57	2931.16	3007.19	3007.19
5	Wt. avg. rate of depreciation	%	5.22	5.23	5.23	5.23
6	**Annual Depreciation Amount**	₹ Cr.	**70.29**	**153.30**	**157.28**	**157.28**
7	No. of operational days	Days	210.00	16.00	365.00	366.00
8	Depreciation with respect to No. of days in operation	₹ Cr.	40.44	6.72	157.28	157.28
9	Cumulative Depreciation	₹ Cr.	40.44	47.16	204.44	361.71

D. Operation and Maintenance Expenses:

147. Regulation 36 of the Regulations, 2012 regarding O&M of Thermal Power Stations provides that,

"Operation and Maintenance Expenses of Thermal Power Stations including MPPGCL's

The Operation and Maintenance expenses admissible to existing thermal power stations comprise of employee cost, Repair & Maintenance (R&M) cost and Administrative and General (A&G) cost . These norms exclude Pension, Terminal Benefits and Incentive, arrears to be paid to employees, taxes payable to the Government, and fees payable to MPERC. The Generating Company shall claim the rate, rent & taxes payable to the Government, cost of chemicals and consumables, fees to be paid to MPERC and any arrears paid to employees separately as actuals. The claim of pension and Terminal Benefits shall be dealt as per Regulation 26.5.

Table No.51 -: *O&M Norms for Thermal Generating Units: ₹ In lakh/MW "*

Units (MW)	*FY13-14*	*FY14-15*	*FY15-16*
200/210/250	*18.42*	*19.90*	*21.46*

148. Considering the above mentioned rates of O&M expenses/ norms prescribed in the Regulations, the O&M expenses for STPS Ext. Units No. 10 & 11 (2X250 MW) for respective years are worked out as given below:

Table No.52-- -: Operation and Maintenance Expenses:

Sr. No.	**Particular**	**Unit**	**18.08.2013 to 15.03.2014**	**16.03.2014 to 31.03.2014**	**01.04.2014 to 31.03.2015**	**01.04.2015 to 31.03.2016**
			Unit No.10	**Unit No. 10 & 11**	**Unit No. 10 & 11**	**Unit No. 10 & 11**
1	Capacity in Operation	MW	250	500	500	500
2	Norms for O&M Expenses	₹ L/MW	18.42	18.42	19.90	21.46
3	**Annual O&M Expenses**	**₹ Cr.**	**46.05**	**92.10**	**99.50**	**107.30**

E. Interest Charges on Working Capital:

149. Regarding interest on working capital, Regulation 27 of the 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%. The interest on

working capital shall be payable on normative basis notwithstanding that the Generating Company has not taken working capital loan from any outside agency or has exceeded the working capital loan compared to the working capital required on the normative basis."

150. Further, Regulation 37 of the Regulations, 2012 regarding working capital for coal based generating stations provides that,

"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.

The cost of fuel shall be based on the landed cost incurred (taking into account normative transit and handling losses) by the Generating Company and Gross Calorific Value of the fuel as per actual for the preceding three months and no fuel price escalation shall be provided during the Tariff period."

151. The annual interest on working capital claimed by the petitioner is as given below:

Table No. 53 -: Amount in ₹ Crores.

Particular	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
Annual Interest on Loan	22.44	49.92	50.44	51.47

152. Regarding the cost of secondary fuel oil for working capital purpose, the cost of only main fuel oil (FO) is considered. The cost of two months' main oil stock at normative availability is worked out as given below:

Table No. 54 -: Two months Oil expenses for Working Capital:

Sr. No.	Particular	Unit	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
			Unit No.10	Unit No. 10 & 11	Unit No. 10 & 11	Unit No. 10 & 11
1	Operational Capacity	MW	250	500	500	500
2	NAPAF	%	85.00	85.00	85.00	85.00
3	Two months stoke of main fuel oil	KL	310.25	620.5	620.5	620.5
4	Rate of secondary main fuel oil	₹/KL	52253	55240	55240	55240
5	**Cost of two months main fuel oil**	**₹ Cr.**	**1.62**	**3.43**	**3.43**	**3.43**

153. Cost of two months' coal stock for working capital is worked out based on the norms prescribed by the Commission and considering the price and GCV of coal for three preceding months prior to COD of the each unit as given below:

Table No. 55 -: Two months Coal expenses for Working Capital:

Sr. No.	Particular	Unit	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
			Unit No.10	Unit No. 10 & 11	Unit No. 10 & 11	Unit No. 10 & 11
1	Station Heat Rate	Kcal/kWh	2400	2400	2400	2400
2	Gross Calorific Value	Kcal/kg	3,714	3,521	3,521	3,521
3	Sp. Coal Consumption	Kg/kWh	0.6488	0.6843	0.6843	0.6843
4	Annual Coal Quantity	MT	1207664	2547733	2547733	2547733
5	Two months coal stock	MT	201277	424622	424622	424622
6	Rate of Coal for WC	₹/MT	2,383	2,533	2,533	2,533
7	**Amount for two months coal stock**	**₹ Cr.**	**47.97**	**107.57**	**107.57**	**107.57**

154. Receivables for working capital are 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:

Table No.56 -: Two months receivables for working capital:-

Sr. No.	Particular	Unit	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
			Unit No.10	Unit No. 10 & 11	Unit No. 10 & 11	Unit No. 10 & 11
1	Variable Charges - Two Months	₹ Cr.	47.97	107.57	107.57	107.57
2	Annual Fixed Cost - Two Months	₹ Cr.	54.48	118.50	120.36	118.27
3	**Receivables - Two Months**	**₹ Cr.**	**102.45**	**226.06**	**227.92**	**225.83**

155. With regard to the rate of interest on working capital, the aforesaid Regulation provides that the Rate of interest on working capital shall be equal to the State Bank of India's Base Rate as on 1st of April of that year plus 3.50%.

156. With the above, the interest rate for the period between COD of Unit No. 10 and COD of Unit No. 11 has been considered as 13.20% (9.70+3.50). The interest rate for FY2013-14 for the period between COD of Unit No. 11 and 31/03/2014 has been considered as 13.50% (10.00+3.50). The same rate of interest (13.50%) has been considered for calculation of interest on working capital for the subsequent years also.

Table No. 57 -: Interest on Working Capital:

Sr. No.	Particular	Unit	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
			Unit No.10	Unit No. 10 & 11	Unit No. 10 & 11	Unit No. 10 & 11
1	Cost of coal for 60 days	₹ Cr.	47.97	107.57	107.57	107.57
2	Cost of fuel oil for two months	₹ Cr.	1.62	3.43	3.43	3.44
3	O&M Charges for one month	₹ Cr.	3.84	7.68	8.29	8.94
4	Maintenance Spares 20% of the O&M charges	₹ Cr.	9.21	18.42	19.90	21.46
5	Receivables for two months	₹ Cr.	102.45	226.01	227.81	225.73
6	Total working capital	₹ Cr.	165.08	363.10	367.00	367.14
7	Applicable rate of interest	%	13.20	13.50	13.50	13.50
8	**Interest on working capital**	**₹ Cr.**	**21.79**	**49.02**	**49.54**	**49.56**

F. Cost of Secondary Fuel Oil:

157. For cost of secondary fuel oil, Regulation 38 of the Regulation, 2012 provides that,

"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

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.

The secondary fuel oil expenses shall be subject to fuel price adjustment at the end of the each Year of Tariff period as per 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."

158. The annual cost of secondary fuel oil claimed by the petitioner is as given below:

Table No. 58 -: Amount in ₹ Crores.

Particular	**18.08.2013 to 15.03.2014**	**16.03.2014 to 31.03.2014**	**01.04.2014 to 31.03.2015**	**01.04.2015 to 31.03.2016**
Annual Interest on Loan	9.93	21.65	21.65	21.71

159. The petitioner submitted that the cost of secondary fuel oil for the period between COD of Unit No. 10 and COD of Unit No. 11 has been determined based on the weighted average Landed Price/ Purchase Price of Secondary Fuel Oil for the months of Jun, July and Aug 2013. Cost of secondary fuel oil for the period beyond COD of Unit No. 11 and up to end of FY2015-16 is determined based on the weighted average Landed Price/ Purchase Price of Secondary Fuel Oil for the months of Jan, Feb and Mar 2014. The petitioner considered preceding three

months' wt. average rate of oil.

160. On scrutiny, it is observed that the rate of secondary fuel filed in the petition is higher than the rate of oil filed in the petition for provisional tariff. Vide letter dated 25th May, 2015, the petitioner was asked to file the reason for claiming higher rate of secondary fuel oil along with the copy of invoices/bills for supporting documents in this regard.

161. By affidavit dated 30th June, 2015, the petitioner submitted the following:

> *"Cost of secondary fuel oil for the period between COD of Unit No. 10 and COD of Unit No. 11 has been determined based on the weighted average Landed Price/ Purchase Price of Secondary Fuel Oil for the three preceding months, i.e., Jun, July and Aug 2013, in accordance with MPERC Tariff Regulations 2012. Similarly, cost of secondary fuel oil for the period beyond COD of Unit No. 11 and up to end of FY16 has been determined based on the weighted average Landed Price/ Purchase Price of Secondary Fuel Oil for the three preceding months, i.e., Jan, Feb and Mar 2014. Whereas, the weighed average rate of secondary fuel oil filed in the petition for approval of provisional generation tariff of the subject Units was based on figures of Jan, Feb and March 2013 which were on provisional basis.*
>
> *Copies of invoices/bills for the secondary oils purchased for the months of Jun, July and Aug 2013 and those for the months of Jan, Feb and Mar 2014 are attached (Annexure-13). There is a minor change in the figures for FO submitted earlier in the subject Petition. The updated figures as per audited books of accounts are as given in table attached as per of Annexure-13."*

162. Based on the above submission, the revised weighted average rate of secondary fuel oil as filed by the petitioner through aforesaid additional submission is considered.

163. Considering the normative plant Availability Factor and norms for secondary fuel oil prescribed in the Regulation, the cost of secondary fuel oil is worked out as given below:

Table No.59 -: Secondary fuel oil expenses:

Sr. No.	Particular	Unit	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
			Unit No.10	Unit No. 10 & 11	Unit No. 10 & 11	Unit No. 10 & 11
1	Installed Capacity	MW	250	500	500	500
2	NAPAF	%	85.00	85.00	85.00	85.00
3	Annual Gross Generation	MU's	1861.50	3723.00	3723.00	3733.20
4	Normative Sp. Oil consumption	ml/kWh	1.00	1.00	1.00	1.00
5	Quantity of Sec. fuel oil	KL	1861.5	3723.0	3723.0	3733.20
6	Rate of secondary fuel oil	Rs/KL	53342	58137	58137	58137
7	**Annual Cost of sec. fuel oil**	**₹ Cr.**	**9.93**	**21.64**	**21.64**	**21.70**

Non-Tariff Income:

164. Regulation 31 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012 provides as under:

(a) *Any income being incidental to the business of the Generating Company derived from sources, including but not limited to the disposal of assets, income from investments, rents, income from sale of scrap other than the de-capitalized/written off assets, income from advertisements, interest on advances to suppliers/ contractors, income from sale of ash/ rejected coal, and any other miscellaneous receipts other than income from sale of energy shall constitute the non tariff income.*

(b) *The amount of Non-Tariff Income relating to the Generation Business as approved by the Commission shall be deducted from the Annual Fixed Cost in determining the Annual Fixed Charge of the Generation Company:*

Provided that the Generation Company shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission from time to time. Non tariff income shall also be Trued-up based on audited accounts."

165. The Commission observed that the Income from other sources which is reflected in the Audited books of accounts is for MPPGCL as whole. Therefore, vide letter dated 25th May, 2015, the petitioner was asked to file the Power station- wise detailed break-up of the various components of income from other sources for FY 2013-14

duly reconciled with the Annual Audited Accounts for FY 2013-14.

166. By affidavit dated 30th June, 2015, the petitioner submitted the Power Station-wise detailed break-up of the various components of income from other sources for FY 2013-14 reconciled with the Annual Audited Accounts for FY 2013-14.

167. On scrutiny of the statement for power station wise non tariff income file by the petitioner, it is observed that the total non tariff income for FY 2013-14 is ₹148.45 Crores and this has been tailed with the figure in annual audited accounts for FY2013-14. The non-tariff income pertaining to STPS Ext. Unit No. 10&11 is ₹ 0.8971 Crores. The details of the non-tariff income pertains to STPS Ext. Unit No. 10&11 as per annual audited accounts for FY 2013-14 are as given below:

Table No.60 -: Non tariff Income:

Sr. No.	Particular	Amount in ₹
1	Interest on fixed deposits	5530005
2	Interest on loan and advances to staff	83610
3	Income from trading (other than electricity)	379780
4	Miscellaneous receipts	2977243
5	**Total non tariff income**	**8970638**
Non tariff income in ₹ Crores		**0.90**

Recovery of Annual Capacity (Fixed) Charges:

168. 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%.

169. Considering the above, the following Annual Capacity (fixed) Charges for Unit 10 and Unit 11 for FY 2013-14 to FY 2015-16 are determined in this order as given below:

Table No.61 -: Annual Capacity (fixed) Charges for Unit No. 10 and 11:

Sr. No.	Particular	Unit	18.08.2013 to 15.03.2014	16.03.2014 to 31.03.2014	01.04.2014 to 31.03.2015	01.04.2015 to 31.03.2016
			Unit No.10	Unit No. 10 & 11	Unit No. 10 & 11	Unit No. 10 & 11
1	Return on Equity	₹ Cr.	41.74	90.87	93.22	93.22

2	Interest Charges on Loan	₹ Cr.	137.10	303.70	300.26	279.91
3	Depreciation	₹ Cr.	70.29	153.30	157.28	157.28
4	O & M Expenses	₹ Cr.	46.05	92.10	99.50	107.30
5	Cost of secondary fuel oil	₹ Cr.	9.93	21.64	21.64	21.70
6	Interest on working capital	₹ Cr.	21.79	49.02	49.54	49.56
7	Annual Fixed Cost	₹ Cr.	**326.90**	**710.63**	**721.45**	**708.97**
8	Non Tariff Income	₹ Cr.	**0.90**	**0.00**	**0.00**	**0.00**
9	Net Annual Fixed Cost	₹ Cr.	**326.00**	**710.63**	**721.45**	**708.97**
10	No. of day in Operation	Day	210.00	16.00	365.00	366.00
11	AFC Proportionate to No. of operational days in the year	₹ Cr.	**187.56**	**31.15**	**721.45**	**708.97**

170. The Annual Capacity (fixed) charges, as determined above are final for FY 2013-14 as these are based on Audited Accounts of this year. The Annual Capacity (fixed) charges as determined above for FY 2014-15 and FY 2015-16 are provisional subject to true-up subsequently, based on the Audited Accounts of these years.

171. The recovery of Annual Capacity (fixed) charges as determined above shall be made by the petitioner in accordance with Clause 40.2 and 40.3 of Regulations, 2012 on pro-rata basis with respect to annual Plant Availability Factor.

Energy (variable) Charges:

Petitioner's Submission:

172. The petitioner worked out energy charges based on the following:

"Year wise Energy Charges have been determined based on Normative Gross Station Heat Rate, Normative Auxiliary Consumption and Normative Specific Fuel Oil Consumption. Average of the values of monthly weighted average landed price of coal and Gross Calorific Value of Coal as fired for STPS Sarni PH-IV, for the months of Jun, Jul and Aug 2013 have been considered while determining the energy charge for the period wef COD of Unit No. 10 to COD of Unit No. 11. Thereafter, average of the values of monthly weighted average landed price of coal and Gross Calorific Value of Coal as fired for STPS Sarni PH-IV, for the months of Jan, Feb and Mar 2014 have been considered while determining the energy charge for the period wef COD of Unit No. 11 onwards. These are indicated in the table below and in Form-16, attached. Impact of permissible Transit & Handling losses (0.8%) has been taken while working out quantities of coal to be purchased during FY14 to FY16, being a non-pit-head generating station."

173. Based on the above, year wise energy charges for Extn. Unit No. 10 and 11 of STPS, Sarni are worked out by the petitioner are as given below:

Table No.62 -: *Rate of Energy Charge from Coal at Ex-bus in ₹/kWh*

FY2013-14		***FY2014-15***	***FY2015-16***
WEF COD of Unit 10 to COD of Unit 11	***WEF COD of Unit 11 to 31/03/2014***	***Unit 10 & Unit 11***	***Unit 10 & Unit 11***
Unit 10	***Unit 10 & Unit 11***		
1.725	*1.934*	*1.934*	*1.934*

174. The petitioner mentioned that during first year of commercial operation of Unit No. 10 the actual period available for generation w.e.f. its COD (18/08/2013) was 226 days only. Similarly, during the first year of commercial operation of Unit No. 11 the actual period available for generation w.e.f. its COD (16/03/2014) was 16 days only.

Provision under Regulation:

175. For calculating the Energy (variable) Charges of thermal power stations, Regulation 41 of the Regulation, MPERC (Terms and Conditions for determination of tariff) Regulation, 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

$$ECR = (GHR – SFC \times CVSF) \times LPPF \times 100 / \{CVPF \times (100 – AUX)\}$$

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.

Provided that Generating Company shall provide details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, liquid fuel etc., details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal with details of the variation in energy charges billed to the beneficiaries along with the bills of the respective month-----:

Energy (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."

Commission's Analysis:

176. The petitioner submitted that the Coal Linkage for STPS Extn. Units No. 10 & 11 was accorded by M/s WCL, Nagpur, vide letter dated 12-13/07/2010. A Fuel Supply Agreement (FSA) was signed by MPPGCL on 02/01/2013 with M/s WCL for supply of of 18.513 LMT per annum of grade "E" of coal to STPS Ext. Unit 10 & 11, for the period of 20-years. As per the FSA, WCL shall endeavor to supply coal from own sources as per Schedule-I of the FSA. However, the guaranteed supply is limited to 65% of the ACQ during FY2012-13 to FY2014-15, 70% of the ACQ during FY2015-16 and 80% of the ACQ during FY2016-17 and onwards. In para 3.3.1 of the Fuel Supply Agreement, it is stated that the shortfall in the quantity is to be met through imported coal.

177. With regard to the price of coal, it is mentioned in para 8 of the FSA that "As delivered price of coal" shall be the sum of Base price, other charges and statutory charges as applicable at the time of delivery of coal. The base price in relation to Indigenous coal and imported coal shall be notified by CIL from time to time.

178. The Commission scrutinized the energy (variable) charges of extension Unit No. 10 and 11 of STPS, Sarni based on the details and documents filed by the petitioner

and provisions under MPERC (Terms and Conditions for determination of tariff) Regulation, 2012.

A. Gross Station Heat Rate:

179. In the instant petition, the petitioner claimed the Energy Charges based on the Gross Station Heat Rate of 2450 Kcal/kWh whereas, in the provisional tariff order dated 8th October, 2013, the Commission approved SHR of 2400 Kcal/kWh based on the guaranteed operating parameters for the generating units. Vide letter dated 25th May, 2015, the petitioner was asked to explain the reasons justifying its claim for higher SHR with supporting documents. By affidavit dated 30th June, 2015, the petitioner mentioned that *"as desired, the reasons justifying MPPGCL's claim for higher SHR along with supporting documents shall be submitted in due course."*

180. The Commission found that the Form TPS-2 regarding "plant characteristics" was missing in the petition. Vide letter dated 25th May, 2015, the petitioner was asked to file the same. By affidavit dated 30th June, 2015, the petitioner filed the form TPS-2 filled up with all necessary information like guaranteed turbine cycle heat rate, Boiler efficiency, type of cooling tower, type of feed pump etc. Based on the aforesaid details, the Gross Station Heat rate is worked out as per provisions under Regulation 35.2 (B) of the MPERC Regulations, 2012.

181. While processing the provisional tariff petition for extension Unit No. 10 and 11 of STPS, Sarni, the petitioner filed the Suppliers' certificate for guaranteed operating parameters for the generating unit. Considering the guaranteed Turbine Cycle heat rate at zero make-up and steam generator efficiency at 100% MCR, the gross station heat rate was determined provisional order dated 8th October, 2013, as given below:

- Turbine Cycle heat rate: 1947.10 Kcal/kWh
- Efficiency of steam generator: 86.51%
- Design Heat Rate: 2250.72 Kcal/kWh
- Gross Station Heat Rate: 1.065 x 2250.72
  = 2400 Kcal/kWh (App.)

182. The Commission has considered the same Station Heat Rate as worked out above based on the Suppliers' certificate for guaranteed operating parameters and considered in provisional tariff order issued by the Commission on 8th October, 2013.

B. Landed Cost of Coal:

183. The petitioner claimed the energy charge for the period wef COD of Unit No. 10 to COD of Unit No. 11 by considering the average of the monthly weighted average landed price of coal for STPS Sarni PH-IV, for the month of June, July and August 2013. The energy charge for the period wef COD of Unit No. 11 onwards are worked out by the petitioner by considering the average of monthly weighted average landed price of coal for STPS Sarni PH-IV, for the months of January, February and March 2014.

184. With regard to landed cost of coal, Regulation 39.4 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2009 and Regulation 41.4 of 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------"*

185. By affidavit dated 30th June, 2015, the petitioner filed the details of coal cost as per audited accounts for FY 2013-14 as supporting documents for calculation of landed price of coal.

186. The Commission scrutinized the landed price of coal based on the details and documents filed by the petitioner and verify the monthly figures of landed price of coal (considered by the petitioner) with the statements/documents made as per audited accounts filed by the petitioner. The Commission found that the landed price of coal considered by the petitioner for unit No. 10 and 11 are as per the audited figures. Therefore, the same landed cost of fuel as filed by the petitioner is considered for determination of energy charges. The details of the weighted average landed price of coal considered in this order for STPS Sarni PH-IV are as given below:

Table No.63 -: Wt. average rate of coal

Month	Wtd. Avg. Price of Coal	Avg. landed price of Coal
	₹/MT	₹/MT
For the Period W.E.F. COD of Unit 10 to COD of Unit 11		
Jun-13	2396.54	**2383.09**
Jul-13	2378.72	
Aug-13	2374.00	
For the Period W.E.F. COD of Unit 11 onwards		
Jan-14	2650.93	**2533.25**
Feb-14	2485.14	
Mar-14	2463.68	

C. Gross Calorific Value:

187. Regulation 41.2 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2009 and Regulation 41.4 of Regulations, 2012 provides that the Gross Calorific Value of primary fuel "as fired" shall be considered for determination of energy charges on ex-power plant basis.

188. The petitioner submitted the average of the monthly Gross Calorific Value of Coal as fired basis (for STPS Sarni PH-IV) for the months of June, July and August 2013 for determining the energy charge w.e.f COD of Unit No. 10 to COD of Unit No. 11. The energy charge for the period w.e.f COD of Unit No. 11 onwards was worked out by the petitioner by considering Gross Calorific Value of Coal as fired basis for STPS Sarni PH-IV, for the months of January, February and March 2014.

189. Vide letter dated 25th May, 2015, the petitioner was asked to file the copy of laboratory test report for the preceding three months for Unit No. 10 & 11 respectively.

190. By affidavit dated 30th June, 2015, the petitioner filed the laboratory test reports in respect of GCV of coal as fired for the preceding three months before the respective CODs. It is observed that the GCV of coal "as fired" claimed in the petition is in line of the monthly laboratory test reports submitted by the petitioner. Therefore, the same GCV of fuel as filed by the petitioner is considered for determination of energy charges in this order. The details of the weighted average GCV of coal for STPS Sarni PH-IV considered in this order are as given below:

Table No.64 -:

Month	Average GCV of Coal kCal/Kg	Wt. Avg. GCV of Coal kCal/Kg
For the Period W.E.F. COD of Unit 10 to COD of Unit 11		
Jun-13	3747	**3714**
July-13	3699	
Aug-13	3695	
For the Period W.E.F. COD of Unit 11 onwards		
Jan-14	3624	**3521**
Feb-14	3607	
Mar-14	3331	

D. Operating Parameters:

191. Specific Oil consumption are considered as specified under Regulation 35.2 of the Regulations, 2012. The unit has natural draft Cooling Tower. Therefore, the norm of 8.5% for Auxiliary Energy consumption is considered as per Regulation 35.2 (D) of the Regulations, 2012. STPS Extn Units No. 10 & 11 (2x250 MW) are considered as non pit-head thus, the normative transit loss of 0.8% has been considered as per Regulation 41.4 of the Regulations, 2012.

192. Based on the above, the operating norms for STPS Extn unit No. 10 & 11 considered for determination of energy charges are as given below:

Table No.65 -:

Particular	Norms
Target Availability	85%
Gross Station Heat Rate	2400 Kcal/kWh
Aux. Energy Consumption	8.50%
Sp. Oil Consumption	1.00 ml/kWh
Transit Loss	0.80%

193. Based on the above, the energy charges ex-bus for STPS Extn unit No. 10 & 11 (2x250 MW) are determined as given below:

Table No.66-: Energy Charges of STPS PH-IV Project:

Sr. No.	Particular	Unit	Final		Projected	
			FY2013-14		FY2014-15	FY 2015-16
			WEF COD of Unit 10 to COD of Unit 11	WEF COD of Unit 11 to 31/03/2014	01/04/2014 to 31.03.2015	01/04/2015 to 31.03.2016
			Unit No. 10	Unit No. 10 & 11	Unit No. 10 & 11	Unit No. 10 & 11
1	Installed Capacity	MW	250	250	500	500
2	NAPAF	%	85.00	85.00	85.00	85.00
3	Gross Station Heat Rate	kCal/kWh	2400	2400	2400	2400
4	Sp. Fuel Oil Consumption	ml/kWh	1.00	1.00	1.00	1.00
5	Aux. Energy Consumption	%	8.50	8.50	8.50	8.50
6	Transit and handling Loss	%	0.80	0.80	0.80	0.80
7	Weighted average GCV of Oil	kCal/ltr.	10,000	10,000	10,000	10,000
8	Weighted average GCV of Coal	kCal/kg	3,714	3,521	3,521	3,521
9	Weighted Average price of Coal	₹/MT	2,383	2,533	2,533	2,533
10	Heat Contributed from HFO	kCal/kWh	10	10	10	10
11	Heat Contributed from Coal	kCal/kWh	2390	2390	2390	2390
12	Specific Coal Consumption	kg/kWh	0.6436	0.6788	0.6788	0.6788
13	Sp. Coal consumption including transit loss	kg/kWh	0.6488	0.6843	0.6843	0.6843
14	Rate of Energy Charge from Coal	Paise/kWh	1.546	1.734	1.734	1.734
15	**Rate of Energy Charge from Coal at ex bus**	**₹kWh**	**1.690**	**1.895**	**1.895**	**1.895**

194. 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 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012.

Other Charges

195. The petitioner filed the other charges which include Electricity duty, Cess on

auxiliary consumption, Rent Rate and Taxes payable to the Government, MPERC Fee, cost of chemicals and consumables, arrears paid to employees, water charges, publication expenses and SLDC/RLDC/NLDC and Transmission Charges.

196. The petitioner submitted that the other expenses in respect of STPS 2X250 MW Extn. Units No. 10 & 11 for the period FY2013-14 have been claimed on actual basis as per audit books of accounts while those for the period FY2014-15 and FY2015-16 have been claimed in this petition on provisional basis as per applicable MPERC Regulations and shall be trued up subsequently, on actual basis.

197. The petitioner is allowed to recover Electricity duty, Cess on auxiliary consumption and water charges if payable, in accordance with Regulation 42 of the MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2012.

198. The petitioner is also allowed to recover Rent Rate and Taxes payable to the Government, MPERC Fee, cost of chemicals and consumables and arrears paid to employees if payable, in accordance with Regulation 36.1 of the MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2012.

199. The petitioner is allowed to recover expenses towards publication of notices in the subject matter directly from the beneficiaries in accordance with Regulation 30 of the MPERC Regulations, 2012.

200. In addition to the above, The petitioner is also allowed to recover SLDC/ RLDC/ NLDC and Transmission Charges in accordance with Regulation 39 of the MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2012.

Implementation of the order:

201. The final generation tariff for FY 2013-14 is determined for Extension Unit No. 10 and Unit No. 11 of Satpura Thermal Power Station from CoD of each Unit. The generation tariff determined in this order for FY 2014-15 and FY 2015-16 is provisional and shall be trued- up subsequently as per Audited Accounts of FY 2014-15 and FY 2015-16.

202. The petitioner must take steps to implement the Order after giving seven (7) days' public notice in accordance with Clause 1.30 of MPERC (Details to be furnished and fee payable by licensee or generating company for determination of tariff and

manner of making application) Regulations, 2004 and its amendments and recalculate its bills for the energy supplied to Distribution Companies of the State/ M.P. Power Management Company Ltd. since CoD of each Unit.

203. The petitioner is also directed to provide information to the Commission in support of having complied with this Order. The deficit/surplus amount as a result of this order shall be recovered or passed on to the MP Power Management Company Ltd/ three Distribution Companies of the state in terms of applicable Regulation in the ratio of energy supplied to them in equal monthly installments during balance period of FY 2015-16.

With the above directions, the subject petition is disposed of.

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

Date: 07th January, 2016

Place : Bhopal

Annexure-"A"

Commission's Observation on the petition and response of the petitioner:

Vide Commission's letter dated 25th May, 2015, the information gaps and discrepancies in the subject petition were communicated to the petitioner. By affidavit dated 30th June, 2015, the petitioner filed its response on the issues raised by the Commission. The issue-wise response filed by the petitioner is as given below:-

A. Scheduled date of Commercial Operation:

1. Issue:

The petitioner has submitted that as per the contract awarded to M/s BHEL, COD of Unit No. 10 & 11 were to be achieved within 35th and 39th months from the effective date of contract (27/02/2009), i.e., by Jan'2012 & May'2012 respectively. The scheduled date of commercial operation of both the units be also informed.

MPPGCL's response:-

As submitted earlier vide MPPGCL's additional submission dated 30/08/2013 in the matter of Provisional Tariff Petition No. 11/2013, the scheduled dates of commercial operation of STPS Extn. Units No. 10 & 11 were Jan 2012 and May 2012, respectively, same as those specified in the contract awarded to M/s BHEL.

B. Capital Cost Components:

2. Issue:

The Annual Audited Accounts for FY2013-14 filed by MPPGCL are for the company as a whole and it is difficult to substantiate the assets capitalized pertains to STPS Ext. Unit No. 10 & 11. Therefore, petitioner is required to file the power station–wise break up of the audited figures with respect to the opening Gross Fixed Assets, assets added during the year and closing Gross Fixed Assets along with the assets under CWIP, during FY2013-14.

MPPGCL's response:-

As desired, details regarding the power station wise break up of the audited figures with respect to the opening Gross Fixed Assets, assets added during the year and *closing Gross Fixed Assets along with the assets under CWIP, during FY 2013-14 are enclosed herewith (Annexure-1).*

3. Issue:

On perusal of the DPR of the project prepared in March, 2008, it is observed that the total estimated project cost including IDC was ₹2636.91 Crores. In the subject petition, the petitioner has filed completion cost of the project as ₹3514 Crores. It is further observed that the initial estimated project cost approved by the Board of petitioner's company and GoMP was ₹ 2350 Crores which has been further revised time and again and the latest revised estimated project cost as approved by the Board on 04/01/2014 and by GoMP on 23/01/2015 is ₹ 3514 Crores. In view of the above, the petitioner is required to file the following details;

i. Statement showing component wise comparison of each project cost item in DPR vis-à-vis project cost filed in the petition along with the justification for variation in cost.

ii. Statement of initial estimated project cost approved by the BoD and GoMP vis-à-vis all revisions of such project cost with detailed reasons of the increase in costs with respect to initial estimate.

MPPGCL's response:-

i. *It is humbly submitted that the reasons for variation in various cost components in each of the revised project cost estimates have already been submitted in Chapter 2 of the Petition, "Project Cost Estimates & Capital Expenditure". However, as desired, a statement showing component wise comparison of each project cost item in DPR vis-à-vis the project cost filed in the petition along with the justification for variation in cost is enclosed herewith (Annexure-2).*

ii. *It is humbly submitted that statement of initial estimated project cost approved by the BoD and GoMP vis-à-vis all revisions of such project cost with detailed reasons of the increase in costs with respect to initial estimate have already been submitted in Chapter 2 of the Petition, "Project Cost Estimates & Capital Expenditure". However, as desired the same is being submitted herewith again (Annexure-3).*

4. Issue:

On further perusal of the cost estimate in DPR, it is observed that the estimated civil cost of the project was ₹372.60 Crores. In table 8.3.1 and 8.3.2 of the petition, the cost of Civil works along with railway siding is shown as ₹ 23.90 Crores and ₹ 51.84 Crores as on CoD of Unit No. 10 and 11 respectively.

In view of the above, the petitioner is required to file the reasons for such huge reduction (1/7th) in the cost of civil works now filed in the petition. The petitioner is also required to file the actual civil cost in the revised cost finally approved by the BoD and GoMP.

MPPGCL's response:-

In the DPR/ Estimates the Civil works are generally consolidated for the ease of placement of orders. As against the figure of ₹ 372.60 Crore, as shown in the DPR, the provision for civil works in the latest approved estimate of Rs 3514.00 Crore, is of ₹ 615.26 crores and the figure for Civil Works along with Railway Siding is ₹703.46 Crore.

It is pertinent to mention that the civil works are primarily for providing foundations, support structure, covering shed, etc. for various plant and equipment or include such civil structures which are directly attributable to bringing the main plant and equipment to its full working condition for the intended use. They have no use, except for providing foundations and shelter to their parent equipment (e.g. boiler, turbine, crushers, wagon tipplers, conveyor belts, motors, etc.) or are necessary for bringing the main plant and equipment to its full intended use (e.g., chimney). At the same time these parent equipment can also not function without these civil works. Therefore, the actual cost of equipment for capitalization purpose should be considered only after considering cost of foundation, support structure, covering shed, etc., for them. The same has been done while capitalizing these equipment in the books of accounts. This is also in line with the provisions of Accounting Standard 10, whose relevant portion is reproduced below:-

9. Components of Cost

9.1 The cost of an item of fixed asset comprises its purchase price, including import duties and other non-refundable taxes or levies and any directly attributable cost of bringing the asset to its working condition for its intended use; any trade discounts and rebates are deducted in arriving at the purchase price. Examples of directly attributable costs are:

(i) site preparation;

(ii) initial delivery and handling costs;

(iii) installation cost, such as special foundations for plant; and

(iv) professional fees, for example fees of architects and engineers.

Excluding the above, the civil works which have separate identity and function independently have been considered under the item "Civil works along with Railway Siding" for the purpose of calculation of depreciation, as per capitalization booklet, whose value works out to ₹ 23.90 Crore as on COD of Unit No. 10 and ₹51.84 Crore as on COD of Unit o. 11, as shown in the tables for depreciation in the petition and as elaborated below:

As on COD of Unit No. 10

SN	*Particulars*	*Amount (Cr. ₹)*
1	*Other Buildings*	3.98
2	*Pucca Road*	1.77
3	*Kuccha Roads*	0.31
4	*Railway Siding*	14.82
5	*Boundary Wall for Civil Buildings*	3.02
	Total	***23.90***

As on COD of Unit No. 11

SN	*Particulars*	*Amount (Cr. ₹)*
1	*Other Buildings*	8.18
2	*Pucca Road*	3.82
3	*Kuccha Roads*	0.31
4	*Railway Siding*	30.56
5	*Boundary Wall for Civil Buildings*	8.96
	Total	***51.84***

Table 8.3.1 and 8.3.2 of the petition are in respect of calculation of Wtd. Avg. Depreciation Rates as on the COD's of Unit No. 10 and 11, respectively. The aforesaid Wtd. Avg. Rates of Depreciation have been arrived at based on the

details as per audited books of accounts and as per capitalization booklet. The same has also been audited by the Statutory Auditor and checked by team of AG during Supplementary Audit of the accounts for FY 14.

5. Issue:

The petitioner has not filed the Form TPS-5B regarding the "break-up of capital cost" of thermal power project. Therefore, the petitioner is required to file the Form TPS-5B with complete details, like original project cost (initially approved) for the project, revision of project cost at different points of time, actual project cost, liability and the variance in project cost with the reasons of variance in this regard.

MPPGCL's response:-

Form TPS-5B has been filed in the Petition, however, the same is not as per the format prescribed by MPERC. This is so because the details in the instant petition have been filed as per the audited books of accounts of MPPGCL. Bookings in various account heads of the books of accounts of MPPGCL do not directly map/match to the list of items as per Form TPS-5B prescribed by the Commission. As such it is difficult to present the project cost details as captured in the audited books of accounts in Form TPS-5B.

In the context, it is humbly submitted that MPPGCL had earlier also filed final tariff petitions in respect of its other projects, such as 210 MW ATPS Extn. Unit No. 5, 500 MW SGTPS Extn. Unit No. 5, etc., based on the audited books of accounts. In those petitions also the details in Form TPS-5B were filed as per the details maintained in the books of accounts of MPPGCL and were not in the format of TPS-5B prescribed by the Commission. The Commission had kindly considered the same and had determined final tariff for those projects based on the submissions made by MPPGCL in corresponding petitions. It is, therefore, humbly requested to kindly consider the submissions made in Form TPS-5B in the instant petition based on the figures appearing in the audited books of accounts of MPPGCL.

However, as desired, MPPGCL has made it's best efforts to map the project cost items booked under different account codes in the books of accounts to the items listed in the Form TPS-5B prescribed by the Hon'ble Commission and a statement in the format of Form TPS-5B indicating complete details, like original project cost (initially approved) for the project, revision of project cost at different points of time, *actual project cost, liability and the variance in project cost with the reasons of variance in this regard, has been prepared and the same is enclosed herewith (Annexure-4).*

6. Issue:

The petitioner has filed the details of the project cost initially approved by its BoD and GoMP along with several revisions is the project cost as follows:

₹ Crores

Particular	***Initial project cost estimate***	***1st revision***	***2nd revision***	***3rd revision***	***4th revision***
	August, 2006	***March, 2008***	***Nov. 2009***	***Jan. 2013***	***Jan. 2014***
Turnkey EPC Cost	*1832.13*	*2184.87*	*2450.25*	*2574.54*	*2569.61*
Non EPC Cost	*23.50*	*63.10*	*132.30*	*232.21*	*330.90*
Land and R&R	*34.00*	*10.00*	*15.00*	*14.00*	*14.00*
Overheads	*160.46*	*39.83*	*46.91*	*81.87*	*79.96*
IDC + Fin. Charges	*300.00*	*339.12*	*387.87*	*395.00*	*519.00*
Total	***2350.09***	***2636.92***	***3032.33***	***3297.62***	***3513.47***

In the aforesaid statement, it is observed that the "Non EPC Cost" has increased manifolds than the cost initially approved for the project. The petitioner is required to explain in details the reasons for the abnormal increase in cost of "Non EPC" items.

MPPGCL's response:-

It is humbly submitted that the reasons for increase in Non-EPC Cost have already been submitted in our petition. However, as desired, the same is being submitted herewith again (Annexure-5)

7. Issue:

The petitioner is required to file a comparison of the project cost of STPS Ext. Unit 10&11 with the similar type of other brown field project of same capacity. The petitioner is also required to justify how the capital cost of the project is comparable with the CERC benchmark capital cost.

MPPGCL's response:-

The CERC Benchmarks for Capital Cost (Hard cost) for Thermal Power Stations with Coal as Fuel do not specify any capital cost norms for 250 MW Unit size. However, a comparison of the total project cost estimate of STPS Ext. Unit 10&11 with that of Unit No. 8 of Parli TPS of Maharashtra State Power Generation Co. Ltd.

(MAHAGENCO), Beed, a similar type of brown field project of same Unit capacity of 250 MW in State Sector, is given in table below:-

S. No.	***Project details***	***Total Capacity (MW)***	***Sector***	***Latest Revised Proj. Cost (Cr. ₹)***	***MPEB Contract***	***Per MW Cost (Cr. ₹)***
1	***MPPGCL**- STPS Extn. Units No. 10 & 11, Sarni*	*500 (2x250)*	*State Sector*	*3514.00*	*BHEL*	*7.03*
2	***MAHAGENCO**- Unit No. 8 of Parli TPS, Beed. #*	*250 (1x250)*	*State Sector*	*1859.24*	*BHEL*	*7.44*

(# - Data Source- CEA's Web Site)

Time overrun/cost overrun:

8. Issue:

The COD of Unit 10&11 has been delayed by 19 months and 21 months respectively as per the contract awarded to BHEL. The petitioner is required to inform whether the delay in CoD of Unit 10 and Unit 11 was attributable to the delay in completion of works by the contractors/agencies? If yes, whether any Liquidated Damages/penalty have been recovered/to be recovered? The details of the same along with supporting documents for recovery of Liquidated Damages may be sought from the petitioner.

MPPGCL's response:-

MPPGCL had granted provisional time extension to M/s BHEL and M/s MBEL for completion of all facilities of Unit No. 10 and 11 up to 18/08/2013 and 31/12/2013, respectively, without prejudice to the recovery of LD and interest on unadjusted advance portion as per Contract. It is humbly submitted that the copies of letter Nos. 1757 dated 12/09/2013, 1872 dated 28/09/2013 and 2238 dated 16/12/2013 regarding provisional time extension have already been submitted with the Petition as Annexure-6, Annexure-7 and Annexure-8.

As the COD of Unit No. 11 could not be achieved till 31/12/2013, it was decided that if the deduction is started towards recovery of LD this may hamper the work of Unit No. 11. As such, considering the security in hand, which is far more than the LD for delay, it was decided not to deduct LD from the subsequent bills. Therefore, no *recovery on account of LD due to delay in commissioning of the Units has been made till date. The actual position in respect of the LD amount deducted/ to be deducted* from respective *contractors' bills shall be submitted once the final decision in the matter is taken by the competent authority.*

Interest during Construction:

9. Issue:

The actual IDC for Unit 10 and Unit 11 with detailed computation of IDC as on Scheduled CoD and as on actual CoD of both the units be submitted.

The reasons for increase (If any) in IDC from schedule CoD to actual CoD be also mentioned. The basis of allocation of IDC Cost among Unit 10 and Unit 11 be informed.

MPPGCL's response:-

As submitted earlier, vide MPPGCL's reply dated 30/08/2013 in the matter of Petition No.11/2013 for approval of provisional generation tariff for the subject Units, it is submitted that the IDC & FC associated with the scheduled loan drawl of ₹ 2425.88 Crore upto the scheduled station COD was ₹ 387.87 Crore.

Estimated figure for IDC & FC as per the latest revised project cost estimate of ₹ 3514 Crore was ₹ 519.00 Crore. Reasons for increase in IDC & FC amount from the earlier estimated figure of ₹ 387.87 Crore to that of ₹ 519.00 Crore are as given below:-

- *Delay in commissioning of the Unit #10 & #11,*
- *Enhanced loan amount, from ₹ 2300.20 Cr. to 2731.76 Cr., as per revised project cost estimate,*
- *Increase in interest rate on PFC loan, from 11.5% to 13%.*

Total actual IDC & FC for the two Units as on Station COD, as per the audited books of accounts of MPPGCL, is ₹ 550.13 Crore. It is humbly submitted that the details of Unit wise IDC amounts and the respective amounts capitalized in the audited accounts of FY14 have already been submitted in the capitalization booklet attached with the Petition as Annexure-9. Increase in IDC & FC amount from the estimated figure of ₹ 519.00 Crore to the actual figure of ₹ 550.13 Crore, as on

Station COD, was mainly on account of delay in achieving the COD.

Regarding the basis of allocation of IDC & FC Cost among Unit 10 and Unit 11, it is humbly submitted that the same is in the ratio of actual expenditure incurred/allocated on the respective Units.

10. Issue:

It is further observed that the IDC and financing charges as per initial cost estimate was ₹ 300 Cr. which has now increased to ₹ 519 Crores in latest revised cost estimate approved by GoMP. The petitioner is required to justify such abnormal increase in IDC and financing charges with supporting documents in this regard.

MPPGCL's response:-

As submitted above, the increase in IDC & FC amount from ₹ 300 Crore estimated in the initial estimate to ₹ 519 Crore estimated in the latest revised estimate of ₹3514 Crore was mainly on account of increase in loan amount due to the revisions in project cost estimate, delay in completion of the project and change in interest rates of PFC loan from time to time.

The initial project cost estimate corresponding to the IDC & FC amount of ₹ 300 Crore was ₹ 2350.00 Crore and the respective debt funding required was ₹ 1880.00 Crore, as per approved funding pattern of 80:20 through Loan and Equity. The corresponding loan amount then sanctioned by M/s PFC was ₹ 1878.20 Crore. The latest revised project cost corresponding to the revised IDC & FC figure of ₹ 519.00 Crore is ₹ 3514.00 Crore. The required debt funding for the project cost estimate of ₹ 3514 Crore is ₹ 2811.20 (80% of ₹ 3514 Crore) and the corresponding loan amount sanctioned so far by M/s PFC is ₹ 2731.76 Crore. It is humbly submitted that the supporting PFC loan sanction letters have already been submitted with the Petition as Annexure-10, Annexure-11 and Annexure-12.

As per the contract, COD of Unit No. 10 & 11 were to be achieved within 35th and 39th months from the effective date of contract (27/02/2009), i.e., by Jan'2012 & May'2012 respectively. However, the commissioning targets have slipped by about 18.5 months for Unit No. 10 and by about 21.5 months for Unit No. 11. There were various reasons for delay. It is humbly submitted that the major reasons for delay have already been elaborated in para 2.15.2 of the Petition.

Further, the details regarding changes in interest rates on PFC Loan have also been submitted in the Party Wise Loan Drawl statement and in the Calculation Sheet for Year wise Wtd. Average Rates of Interest, submitted as Annexure-13 and Annexure-63 with the Petition, respectively.

Infirm power:

11. Issue:

Details regarding infirm power supplied to grid and revenue recovered from sale of infirm power from each unit along with SLDC statement be filed. The actual fuel expenses for generation of infirm power duly certified by the statutory Auditor's be also submitted.

MPPGCL's response:-

As submitted in Para 2.12.4 on page 37 of the Petition, the total Infirm Energy generated from STPS Extn. Unit No. 10 for the period between the date of its first synchronization (22/02/2013) and the date of its commercial operation, COD (18/08/2013), as per the revised UI/DSM account issued by SLDC, MPPTCL Jabalpur is 101.23 MUs. The corresponding revenue earned during Infirm Power generation from STPS Extn. Unit No. 10 is ₹4.10 Crore.

Similarly, the total Infirm Energy generated from STPS Extn. Unit No. 11 for the period between the date of its first synchronization (02/10/2013) and the date of its commercial operation, COD (16/03/2014), as per the revised UI/DSM account issued by SLDC, MPPTCL, is 99.03 MUs. The corresponding revenue earned during Infirm Power generation from STPS Extn. Unit No. 11 is ₹9.13 Crore.

SLDC certified statement in support of the above details is attached (Annexure-6). The details regarding Infirm Energy for the period 22nd Feb 2013 to 28th Feb 2013 have been requested from SLDC and the same shall be submitted on receipt.

In the books of accounts for FY14 an amount of ₹ 7.26 Crore has, however, been booked as the revenue earned from Infirm Power generation from Unit No. 10. Similarly an amount of ₹ 9.14 Crore has been booked as the revenue earned from Infirm Power generation from Unit No. 11. This is so because some subsequent revisions in the monthly UI/DSM charges accounts have been made by SLDC which could not be given effect to in the books of accounts for FY14.

The effect of above changes shall be in terms of increase in the project cost. However, the above changes shall be accounted for in the books of accounts for FY 15, hence the same has not been considered at this stage. Necessary correction for the same shall be requested in the True petition for FY 15.

The actual fuel expenditure during pre commissioning activities, start up and trial run, for Unit No. 10 and Unit No. 11 are Rs117.85 Crore and ₹ 72.07 Crore, respectively. The same have been duly certified by the statutory auditors. It is humbly submitted that the above details have already been submitted as a part of Annexure-9 submitted with the Petition (on Page 91 of Annexures Vol.-I).

12. Issue:

On perusal of the details regarding fuel expenditure during Pre-Commissioning activities as provided in table 2.12.5 of the petition, it is observed that the fuel expenditure for Unit No. 10 is ₹ 117.85 Crores and for Unit No. 11 is ₹ 72.07 Crores. However, the revenue generated from sale of infirm power from unit 10 & 11 is ₹9.14 Crores and Rs.7.26 Crores respectively whereas, approximately 100 MU's have been generated by each unit.

In view of the above, the petitioner is required to explain the reasons for such a higher expenditure on start up fuel for Unit No. 10 commissioned much prior to Unit No. 11.

MPPGCL's response:-

The time duration between oil synchronization and the date of CoD was more in case of Unit No. 10 as compared to that for Unit No.11. This was so because in initial stages the stabilizing time for Unit No. 10 was more due to frequent tripping of various auxiliaries on account of various teething problems. This resulted in higher consumption of secondary oil in Unit No.10 as compared to that in Unit No. 11.

13. Issue:

The petitioner is also required to confirm whether the revenue from sale of infirm power has been accounted for arriving at the Capital Cost claimed in the petition.

MPPGCL's response:-

As already submitted in Para 18 of the Petition (on Page 11), it is confirmed that the *revenue from sale of Infirm Power has been accounted for arriving at the Capital cost claimed in the petition.*

Initial Spares:

14. Issue:

With regard to initial spares, the petitioner is required to file a detailed list of the Initial Spares capitalized along with quantity and amount, reflected in the books of accounts. The petitioner is also required to confirm whether any mandatory initial spares were supplied by any contractor/vendor as a part of contract.

MPPGCL's response:-

The list of Initial mandatory Spares as a part of contract being supplied by the respective contractors is enclosed (Annexure–7). Further it is to confirm that the contractors have already started supplies of mandatory spares. Spares amounting to Rs 29.52 Crore have been capitalized till 31/03/2014, as detailed below:-

(Amount in ₹)

Sr. No.	*Particulars*	*Order Value*	*Spares Capitalized up to 31/03/2014*
1	MPB	328500000	67339410.00
2	BoP	332320000	225901208.00
3	Weigh Bridge	2000000	2000000.00
	Total	***662820000***	***295240618.00***

Common Facilities:

15. Issue:

The petitioner is required to submit the bifurcation of common capital cost incurred and capitalized on the common facilities between Unit 10 and Unit 11 as on the CoD of Unit 10 and 11. The petitioner is also required to file the statement for apportionment of common facility as per clause 8.3 of the MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2012.

MPPGCL's response:-

Details regarding bifurcation of the common capital cost as on the COD of Unit No.

10 and 11 are given in attached Annexure-4. Common facilities in the project have been apportioned equally between Units 10 and 11 on the basis of the capacity of these Units, as per clause 8.3 of the MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2012.

C. Additional Capitalization:

16. Issue:

With regard to the additional capitalization, the petitioner is required to submit the details of additional capitalization in terms of Regulation 20.1 of MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2012. The petitioner is also required to file a comprehensive reply to the following issues with all relevant supporting documents in favor of its claim for additional capitalization:

- **Whether the addition of asset is on account of the reasons (a) to (e) in clause 20.1 of the Regulations, 2012.**
- **Whether the assets capitalized during the year are under original scope of work. Supporting documents be also filed in this regard.**

MPPGCL's response:-

It is humbly submitted that the details of additional capital expenditure/ additional capitalization in respect of the two Units have already been submitted in the Petition at Para 2.13 (on Page 38-39) and also in Form TPS-9 attached with the Petition (on page 81).

As per the audited books of accounts of MPPGCL for FY14, the actual additional capital expenditure for Unit No. 10 w.e.f. it's COD (18/08/2013) till the COD of Unit No. 11 (16/03/2014) is ₹ 23.47 Crore. Similarly, the actual additional capital expenditure for Units 10 & 11 subsequent to the station COD (16/03/2014) and up to 31/03/2014 is ₹7.16 Crore (₹3.54 Crore for Unit No. 10 and ₹3.62 Crore for Unit No. 11). Provisional figure for additional capital expenditure for the two Units during FY15 is ₹ 64.71 Crore. Projected expenditure on balance works and liabilities during FY16, till project completion, is ₹281.81 Crore.

Unit Wise and Year wise additional capital expenditure, subsequent to COD of respective units for the period till end of FY16, and the total projected capital *expenditure till project completion is submitted again herewith in the table below:-*

Addl. Capital Expenditure for STPS, Extn. Units No. 10 & 11(Amount in Cr. ₹)

Unit	FY14			Add. Cap. exp. in FY15	Addl. Capital expenditure in FY16	Total addl. Capital exp. after respective CODs	Total Capital exp. till project completion
	Capital exp. Till respective COD	Addl. Cap. exp. after respective COD	Total Cap. exp. Till 31/03/2014				
# 10	1551.51	27.01	**1578.52**	32.14	131.85	191.00	1742.51
# 11	1584.80	3.62	**1588.42**	32.57	149.96	186.15	1770.96
Total	3136.31	30.63	**3166.94**	**64.71**	**281.81**	**377.15**	**3513.47**

The projected additional capital expenditure up to FY16, as submitted above, is within the original scope of works of the Project and is on account of the reasons (a) to (e) in clause 20.1 of the Regulations, 2012.

D. Tariff filing formats:

17. Issue:

Some of the tariff filing formats are either incomplete or missing as given below:

i. **In form TPS-1, column of reference form is to be filled up.**

ii. **Form TPS-2 regarding “plant characteristics” is missing.**

iii. **In form TPS-3, Guaranteed Design Heat rate is not mentioned.**

iv. **In form TPS-5A, the petitioner has mentioned the date of approval of capital cost based on fourth revision (by GoMP) dated 23.01.2015. The price level of approved initial cost estimates along with the present day cost and completed cost as on scheduled CoD be also filled up.**

v. **Form TPS-5 needs to be filled up as per the details provided in the format.**

vi. **Form TPS-5C regarding “Break-up of Construction/Supply/Service packages” is missing. Complete updated details need to be filled up in this format.**

vii. **Details in form TPS-9A & 9B are found blank. The details regarding “statement of capital cost” and “statement of capital works in progress” need to be filled-up in the respective forms.**

viii. **In form TPS-10 regarding financing of additional capitalization, the reasons for negative equity during FY2013-14 and FY 2014-15 be**

explained. Why the year wise funding for additional capitalization is more than the additional assets mentioned in this form.

ix. **In form TPS-11 regarding "calculation of depreciation rate", the following mismatch is observed in civil component of the capital cost;**

Particular	As on COD of Unit 10	As on COD of Unit 11
• Total GFA	- ₹1207.07 Crores.	₹ 2936.20 Crores
• Civil Works including Railway siding	- ₹ 23.90 Crore	₹ 51.84 Crores
• Civil work % of GFA	- 1.98%	1.76%

In view of the above, the petitioner is required to explain or address the aforesaid discrepancies and inform the actual cost of the civil works with revised rate of depreciation in this regard.

MPPGCL's response:-

i. *As desired, revised form TPS-1 with duly filled up column of reference forms is attached herewith (Annexure-8).*

ii. *As desired, Form TPS-2 regarding "Plant Characteristics" is attached (Annexure-9).*

iii. *As desired, revised Form TPS-3, with Guaranteed Design Heat Rate duly filled up is attached (Annexure-10).*

iv. *As desired, revised Form TPS-5A mentioning the price level of approved initial cost estimates along with the present day cost and completed cost as on scheduled COD and at actual COD, is attached (Annexure-11).*

v. *It is humbly submitted that the Form TPS-5 is regarding Abstract of Admitted Capital Cost for the Existing Projects. Final tariff of the subject project has not yet been determined by the Hon'ble Commission. As such this Form can not be filled at this stage.*

vi. *As desired, Form TPS-5C regarding "Break-up of Construction/Supply/Service Packages" is attached (Annexure-12).*

vii. *It is humbly submitted that the desired details have already been submitted in Annexure-5 with the Petition.*

viii. *The respective amounts indicated as negative entries under Equity head during FY14 and FY15 in Form TPS-10 were earlier paid through Equity funding. However, subsequently these amounts have been refunded and the same amounts have* *been released by PFC through loan funding. As such, there are negative equity entries in FY14 and FY15. Further, the year wise funding shown in Form TPS-10, subsequent to COD, is more than the additional assets mentioned in this form because payments also have to be made against the previous years' retained amounts/ liabilities.*

ix. *It is humbly submitted that the reply submitted above at item Sr. No. 4 may please be referred to in this regard.*

E. Funding of the project:

18. Issue:

There is mismatch observed in the assets capitalized vis-à-vis funding considered in the subject petition at different points of time. The petitioner has considered more funding than the assets capitalized for each unit. In view of the above, the petitioner is required to file the following details of the assets capitalized and corresponding funding (as per books of accounts) :

Particular	Assets Capitalized	Loan	Equity	Debt-equity ratio
Unit No. 10 as on its COD				
Unit No. 11 as on its COD				
Unit No. 10 & 11 as on COD of Unit 11				
Unit No. 10 & 11 as on 31st March, 2014				

MPPGCL Petitioner's response:-

The funding through Loan and Equity submitted in the Petition, as on different milestone dates, is on actual disbursement basis and the same is in line with the MPERC Tariff Regulations 2012. In the Petition, Return on the Equity has been claimed on the paid up equity capital in accordance to regulation 22 of the MPERC Tariff Regulations 2012. Similarly, the Interest and Finance Charges on Loan Capital have been calculated in accordance to regulation 23 of the MPERC Tariff Regulations 2012.

The details in respect of capital expenditure, assets capitalized and corresponding funding through loan and equity are given in table below:

(Amount in Cr. ₹)

Particulars		***Total Exp.***	***Exp. Capitalized***	***Exp. Retained in CWIP***	***Funding***			***Ratio***	
					Loan	***Equity***	***Total***	***Debt***	***Equity***
As on COD of Unit # 10 (18/08/2013)	*U#10*	*1551.51*	*1207.07*	*344.44*	*1101.71*	*310.96*	*1412.67*	*77.99*	*22.01*
	U#11	*1392.09*	*79.38*	*1312.71*	*988.50*	*279.01*	*1267.51*	*77.99*	*22.01*
	Total	***2943.60***	***1286.45***	***1657.15***	***2090.21***	***589.97***	***2680.18***	***77.99***	***22.01***
As on COD of Unit # 11 (16/03/2014)	*U#10*	*1574.98*	*1552.10*	*22.88*	*1212.60*	*287.60*	*1500.20*	*80.83*	*19.17*
	U#11	*1584.80*	*1384.10*	*200.70*	*1220.16*	*289.39*	*1509.55*	*80.83*	*19.17*
	Total	***3159.78***	***2936.20***	***223.58***	***2432.76***	***576.99***	***3009.75***	***80.83***	***19.17***
As on 31/03/2014	*U#10*	*1578.52*	*1552.91*	*25.61*	*1225.92*	*296.05*	*1521.97*	*80.55*	*19.45*
	U#11	*1588.42*	*1540.18*	*48.24*	*1233.61*	*297.90*	*1531.51*	*80.55*	*19.45*
	Total	***3166.94***	***3093.09***	***73.85***	***2459.53***	***593.95***	***3053.48***	***80.55***	***19.45***

F. Components of Annual Capacity (fixed) Charges:

Return on equity:

19. Issue:

The opening equity for unit No. 10 is considered as ₹ 310.96 Crores which is 25.76% of the opening GFA whereas, the petitioner has mentioned that the Debt – Equity ratio as on CoD of unit No. 10 is 78 : 22. The reason for the aforesaid variation in contention be explained.

MPPGCL's response:-

As humbly submitted in item 18 above, the funding through Loan and Equity submitted in the Petition as on different milestone dates is on actual disbursement basis and the same is in line with the MPERC Tariff Regulations 2012. The Return on the Equity has been claimed in the Petition on the paid up equity capital in accordance to regulation 22 of the MPERC Tariff Regulations 2012. The Debt-Equity Ratio of 78:22 as on COD of Unit No. 10 is on actual disbursement basis of loan and equity.

Interest and finance charges:

20. Issue:

Opening loan of ₹ 1101.71 Crores for Unit No. 10 is considered by the petitioner which is 91% of the assets capitalized and pertain to Unit No. 10 as on its COD. This needs to be clarified. The petitioner is also required to file

detailed calculations for working out the year-wise weighted average rate of interest after CoD along with supporting documents.

MPPGCL's response:-

As humbly submitted in item 18 above, the funding through Loan and Equity submitted in the Petition as on different milestone dates is on actual disbursement basis and the same is in line with the MPERC Tariff Regulations 2012. In the Petition the Interest and Finance Charges on Loan Capital have been calculated on the actual loan outstanding as on respective dates in accordance to regulation 23 of the MPERC Tariff Regulations 2012.

It is humbly submitted that the detailed calculations for working out the year-wise weighted average rate of interest after COD along with supporting documents have already been submitted as Annexure-63 with the Petition.

Depreciation:

21. Issue:

The petitioner has filed the "Audited booklet" indicating Capitalization of assets in STPS Sarni Unit No. 10 & 11. The petitioner is required to file the Assets-cum-depreciation register for this power house also duly reconciled with the details of Gross Fixed Assets and addition of assets recorded in the Annual Audited Accounts. Any difference in the figures between these two records be also explained.

MPPGCL's response:-

It is humbly submitted that the details of Assets Capitalized and the Depreciation amounts booked in the audited books of accounts of FY14 for STPS Extn. Units No. 10 & 11 have already been submitted as part of Annexure-9, audited booklet titled "Capitalization of STPS Sarni Unit No. 10 & 11 (2X250 MW)" submitted with the Petition. The same is duly reconciled with the details of Gross Fixed Assets and addition of assets recorded in the Annual Audited Accounts for FY14.

22. Issue:

The rate of depreciation filed by the petitioner is appearing on higher side. The petitioner is required to file the reason for claiming higher rate of depreciation claimed in the petition.

MPPGCL's response:-

The Wtd. Avg. Rates of Depreciation have been arrived at based on the rates specified by the Hon'ble Commission in Tariff Regulations 2012 and the value of gross fixed assets on respective milestone dates as the per audited books of accounts. The same has also been audited by the Statutory Auditor and checked by team of AG during Supplementary Audit of the accounts for FY 2013-14.

Cost of secondary fuel oil

23. Issue:

It is observed that the rate of secondary fuel filed in the petition is higher than the rate of oil filed in the petition for provisional tariff. The reason for claiming higher rate of secondary fuel oil be explained. The copy of invoices/bills for supporting documents in this regard be also submitted.

MPPGCL's response:-

Cost of secondary fuel oil for the period between COD of Unit No. 10 and COD of Unit No. 11 has been determined based on the weighted average Landed Price/ Purchase Price of Secondary Fuel Oil for the three preceding months, i.e., Jun, July and Aug 2013, in accordance with MPERC Tariff Regulations 2012. Similarly, cost of secondary fuel oil for the period beyond COD of Unit No. 11 and up to end of FY16 has been determined based on the weighted average Landed Price/ Purchase Price of Secondary Fuel Oil for the three preceding months, i.e., Jan, Feb and Mar 2014. Whereas, the weighed average rate of secondary fuel oil filed in the petition for approval of provisional generation tariff of the subject Units was based on figures of Jan, Feb and March 2013 which were on provisional basis.

Copies of invoices/bills for the secondary oils purchased for the months of Jun, July and Aug 2013 and those for the months of Jan, Feb and Mar 2014 are attached (Annexure-13). There is a minor change in the figures for FO submitted earlier in the subject Petition. The updated figures as per audited books of accounts are as given in table attached as pert of Annexure-13.

Non tariff income:

24. Issue:

Income from other sources reflected in audited books of accounts is for

MPPGCL as whole. The Power station wise detailed break-up of the various components of income from other sources for FY 2013-14 duly reconciled with the Annual Audited Accounts for FY 2013-14 be filed by the petitioner.

MPPGCL's response:-

As desired, Power Station wise detailed break-up of the various components of income from other sources for FY 2013-14, duly reconciled with the Annual Audited Accounts for FY 2013-14, is attached (Annexure-14).

Coal Cost:

25. Issue:

The petitioner has not filed the form TPS-15 regarding the break-up of coal cost for preceding three months. The petitioner is required to file the details of coal cost in Form TPS-15. The petitioner is also required to file the supporting documents in this regard.

MPPGCL's response:-

As desired, the details of coal cost as per audited books of accounts for FY14 are attached (Annexure-15). The supporting documents in this respect are also attached (Annexure-16).

26. Issue:

With regard to the Gross Calorific Value of coal, the petitioner is required to file the copy of laboratory test report for the preceding three months for unit No. 10 & 11 respectively.

MPPGCL's response:-

As desired, copy of the laboratory test reports in respect of GCV of coal as fired in the two Units for the preceding three months before the respective CODs are attached (Annexure-17).

27. Issue:

While claiming the energy charges, the petitioner has considered Gross Station Heat Rate of 2450 Kcal/kWh. In provisional tariff order, the Commission has considered SHR of 2400 Kcal/kWh based on the guaranteed operating parameters for the generating units. The petitioner is required to

explain the reasons justifying its claim for higher SHR with supporting documents.

MPPGCL's response:-

As desired, the reasons justifying MPPGCL's claim for higher SHR along with supporting documents shall be submitted in due course.

G. Details regarding firm generation and PAF:

28. Issue:

The petitioner is required to file Month-wise details of the firm power generated from Unit 10 and Unit 11 for FY 2013-14 and FY 2014-15 along with the supporting documents. SLDC's Certificate for the month-wise statement of Plant availability factor for Unit 10 and Unit 11 be also submitted.

MPPGCL's response:-

As desired, month wise details of firm power generated from STPS Extn. Unit 10 and Unit 11 for FY 2013-14 and FY 2014-15 along with the supporting documents is attached (Annexure-18). SLDC's Certificate for the month-wise statement of Plant availability factor for Unit 10 and Unit 11 are also attached (Annexure-19)

On scrutiny of the above-mentioned response filed by the petitioner, it was observed that the response of the petitioner on certain core issues was either inadequate or needs clarity. Vide letter dated 3rd August, 2015, the observations of the Commission on all such issues were communicated to the petitioner seeking its reply by 25th August, 2015. By affidavit dated 25th August, 2015, the petitioner filed its response along with the supporting documents. The issue-wise response filed by the petitioner is as given below:-

i. Issue:

It is informed that the increase in IDC & FC amount from the estimated amount of ₹ 519 Crore to the actual figure of ₹ 550.13 Crore (as on Station COD) was mainly on account of delay in achieving the COD. In view of the above, the petitioner is required to file the total increase in IDC due to delay in COD of both the Units.

MPPGCL's submission:-

As submitted in MPPGCL's reply to the item at Sr. No. 9 in the additional submission dated 30/06/2015, the increase in IDC & FC amount from the estimated figure of ₹ 519.00 Crore to the actual figure of ₹ 550.13 Crore (as on Station COD) was on account of slippage in achieving the COD of Unit No. 11 for the reasons already submitted in the petition. The revised approved project cost of ₹ 3514.00 Crore was put up for approval of the BOD MPPGCL in Dec 2013. At that point of time the Unit No. 10 was already put into commercial operation and the Unit No. 11 was anticipated to be put into commercial operation by end of Dec 2013. Accordingly, in the revised project cost estimate of ₹ 3514.00 Crore the IDC & FC amount was estimated at ₹ 519.00 Crore based on the actual loan drawl of ₹ 2177.28 Crore till Sep 2013 and an anticipated total loan drawl amount of ₹ 2311.70 Crore till Station COD.

However, the COD of Unit No. 11 got further delayed by some more time and was actually achieved on 16/03/2014. The total actual loan drawl till Station COD was ₹2432.76 Crore, as against the estimated figure of ₹ 2311.70 Crore. As such the IDC & FC amount increased partly due to increase in loan drawl till COD and also on account of further shifting of COD date from Dec 2013 to 16/03/2014. Thus, the increase in IDC due to delay of around two and half months in achieving the Station COD from the revised anticipated schedule of Dec 2013 to 16/03/2014 was approximately around ₹ 29.75 Crore.

ii. **Issue:**

The petitioner was asked to file the actual IDC for Unit No. 10 and 11 with detailed computation of IDC as on Schedule CoD and as on actual CoD of both the units. The aforesaid information is not filed in the reply. Therefore, detailed computation of IDC as on Scheduled CoD and as on actual CoD of both the units be filed.

MPPGCL's submission:-

The total actual IDC & FC for Unit No. 10 and Unit No. 11 up to Station COD is ₹ 550.13 Crore. Out of the aforesaid amount of ₹ 550.13 Crore, the IDC & FC amount for Unit No. 10 is ₹ 237.02 Crore (upto 18/08/2013) and that for Unit No. 11 is ₹ 313.11 Crore (up to 16/03/2014). Quarter wise breakup of the loan drawls and the corresponding IDC & FC amounts till actual Station COD (16/03/2014) has already *been submitted in Form TPS-14 filed with the petition. However, these details are being given herewith again in attached Annexure-1.*

As submitted earlier, the IDC & FC associated with the scheduled loan drawl of ₹ 2425.88 Crores upto the scheduled station COD (May 2012) was ₹ 387.87 Crores. The detailed quarter wise break up for the IDC & FC as on scheduled COD is attached as Annexure-2.

iii. Issue:

The amount under additional capitalization do not tally with the amount capitalized in books of account for FY 2013-14. Therefore, the petitioner is required to reconcile the assets capitalized under additional capitalization with the Annual Audited Accounts for FY 2013-14 and FY 2014-15.

MPPGCL's submission:-

Details of Unit Wise Capital Expenditure incurred, Expenditure Capitalized and Expenditure Retained in CWIP, as on COD of Unit No. 10 (18/08/2013), COD of Unit No. 11 (16/03/2014) and as on 31/03/2014 have been submitted in Annexure-5 filed with Petition. The aforesaid figures are duly reconciled with the audited accounts of FY14, as filed with the Petition in the form of Capitalization booklet (Annexure-9 filed with the Petition). Copies of Annexure-5 (Page 50) and relevant page of Annexure-9 (Page 59) to the Petition are being attached herewith again for ready reference please (Annexure-3).

The books of accounts for FY15 are under final stage of preparation. The details can be made available once the BOD approves the books of accounts. This is likely to take some more time. It is, therefore, humbly requested before the Commission to kindly permit some time to file the audited accounts of FY15.

iv. Issue:

It is mentioned in SLDC's statement dated 24th March, 2015 that the infirm energy generated by Unit No. 10 for the period 22nd Feb. 2013 to 28th Feb. 2013 could not be computed due to non availability of ABT meter data from MPPGCL. Therefore, the details of the infirm energy generated and revenue earned during the period of 22nd Feb. 2013 to 28th Feb. 2013 from Unit No. 10 be filed by the petitioner.

MPPGCL's submission:-

The Infirm energy from Unit No. 10 for the period 22/02/2013 to 28/02/2013 may be treated as negligible being very small. Copy of the supporting document in this regard is attached (Annexure-4).

v. Issue:

The petitioner is also required to file the reason for difference in revenue earned from sale of infirm power generated from Unit No. 10 (as certified by the auditor on page 91 of the annexure-I filed with the petition) vis-à-vis certified by the SLDC in its statement dated 24th March, 2015 filed with the instant submission.

MPPGCL's submission:-

In MPPGCL's reply dated 30/06/2015, the reason for difference in the figure for revenue earned from sale of Infirm Power generated from Unit No. 10 as taken in the audited books of accounts of MPPGCL for FY14 (submitted on page 91 of Annexures Vol-I filed with the petition) vis-à-vis the figure as certified by the SLDC in its statement dated 24/03/2015 is because of subsequent revisions in the monthly UI/DSM charges accounts issued by the SLDC after finalization of accounts of MPPGCL for FY14 which could not be given effect to in the books of accounts for FY14.

The effect of above changes shall be in terms of increase in the project cost. However, the above changes can now only be accounted for in the books of accounts for FY 15, hence the same have not been considered at this stage. Necessary correction for the same shall be requested in the True up petition for FY 15. It is humbly requested to kindly permit the same.

vi. Issue:

It is observed that the revenue earned from generation of 99.03 MUs infirm power from Unit No. 11 is more than the double of the revenue earned from generation of 101.23 MUs from Unit No. 10. Therefore, the reasons for this variation be submitted.

MPPGCL's submission:-

The revenue earned from generation of Infirm Power by a thermal generating Unit till COD is determined by the SLDC as per the prevailing UI/DSM Charges

Regulations notified by Hon'ble CERC from time to time. The UI/DSM charges corresponding to the Infirm energy generated by a Unit are determined by the SLDC based on the average frequency of a time-block at the rates specified in these Regulations. As such, there is no direct and simple relation between the quantum of Infirm energy generated by a Unit and the corresponding revenue earned therefrom. The details of revenue earned from generation of Infirm Power in respect of the STPS Extn. Units No. 10 and 11, Sarni have been filed in the petition as per the details certified by the SLDC.

vii. Issue:

It needs to be confirmed whether the primary fuel other than domestic coal was consumed during generation of infirm power or not. If so, the details of the same be filed.

MPPGCL's submission:-

It is confirmed that the primary fuel other than domestic coal was consumed during generation of Infirm Power from the subject Units. 7655 MT of imported coal was consumed in Unit No. 10 and 10707 MT of imported coal was consumed in Unit No. 11. The details of the same are attached herewith (Annexure-5).

viii. Issue:

The petitioner was asked to file the Assets-cum-depreciation register for this power house duly reconciled with the details of Gross Fixed Assets and addition of assets recorded in the Annual Audited Accounts. The same is not found with the reply. The petitioner is required to file the Assets-cum-depreciation of this power house.

MPPGCL's submission:-

As desired, the Assets-cum-depreciation register for STPS Extn. Units No. 10 & 11 (PH-IV) for FY14, duly reconciled with the details of Gross Fixed Assets and addition of assets recorded in the Annual Audited Accounts of MPPGCL for FY14, is attached herewith (Annexure-6). The Assets-cum-depreciation registers for FY15 and FY16 prepared on provisional/projected basis are also attached (Annexure-7 & Annexure-8).

ix. Issue:

With regard to the depreciation rate for civil works, Appendix-II of the MPERC

(Terms and Conditions for determination of Generation tariff) Regulations, 2012 provides as under:

Sr. No.	Particular	Deprecation Rate(%)
	Building & Civil Engineering works	
(i)	**Offices and showrooms**	**3.34%**
(ii)	**Containing thermo-electric generating plant**	**3.34%**
(iii)	**Containing hydro-electric generating plant**	**3.34%**
(iv)	**Temporary erections such as wooden Str.**	**100%**
(v)	**Roads other than Kutcha Roads**	**3.34%**
(vi)	**Others**	**3.34%**

It is observed that the depreciation rate for all type of civil works is 3.34% as per the Regulations, 2012. Therefore, the petitioner is required to file the weighted average rate of depreciation as per Appendix-II of the MPERC (Terms and Conditions for determination of Generation tariff) Regulations, 2012.

MPPGCL's submission:-

As humbly submitted in MPPGCL's reply dated 30/06/2015, weighted average rates of depreciation have been arrived at based on the rates specified in Appendix-II of MPERC Tariff Regulations 2012 and based on the value of gross fixed assets as the per audited books of accounts for FY14 on the respective CODs of the two Units and as on 31/03/2014. The accounts of MPPGCL for FY14 have also been audited by the Statutory Auditor and checked by team of AG during Supplementary Audit. It is, therefore, humbly requested to consider the depreciation rates as filed in the petition.

On perusal of the response filed by the petitioner, it was observed that the issue regarding the cost of coal for generation of infirm power was still either un-replied or lacking clarity. Vide letter dated 28th September, 2015, the petitioner was asked to explain the reasons for using imported coal instead of domestic/linkage coal for generation of infirm power from Unit No. 10 and 11. By affidavit dated **8th October, 2015**, the petitioner filed its response on the issue of the imported coal used for generation of infirm power from Unit No. 10 and 1 as follows.

MPPGCL's submission:-

"Fuel Supply Agreement (FSA) for STPS Extn. Units No. 10 & 11, Sarni was signed with WCL on 02/01/2013. Subsequently, MPPGCL vide letter dated 30/01/2013 had requested CEA New Delhi to recommend CIL for supplying 100000 MT of Coal for start up, trial run & commissioning activities of these Units till the regular coal supply gets started (Annexure-1). M/s WCL vide letter No. 1795 dated 23/02/2013 had agreed to supply 50000 MT of coal to STPS Extn. Unit No. 10, Sarni under FSA on "as is where is" basis through the window of "Build Up Period" (Annexure-2). An Order for transportation of this quantity of coal on "as is where is basis" was awarded on 29/06/2013 (Annexure-3). However, the actual release of the aforesaid quantity of coal was done by M/s WCL in Dec 2013 vide letter No. 1171 dated 03/12/2013 (Annexure-4) and the actual transportation was done during 16/12/2013 to 23/02/2014, much later than the COD of Unit No. 10 (18/08/2013) . Similarly, 50000 MT of coal was provided and released by WCL for Unit No. 11 on "as is where is basis" vide letter No. 2964 dated 23/09/2014 (Annexure-5) which was transported during 27/10/2014 to 13/12/2014, much later than the COD of Unit No. 11 (16/03/2014).

It is also pertinent to mention that total quantity of coal used for generation of infirm power was much higher than the 100000 MT quantity provided by WCL. The quantities agreed by WCL were provided by it much after the date of requirement, thus, there was no option but to use the existing available coal. It is further pertinent to mention that imported coal was also partially used to have suitable quality for stabilized operation of the Units. MPPGCL further wishes to submit that coal received from WCL against above mentioned 100000 MT quantity was consumed on its receipt after COD and effect of difference in price, if any, has already been credited to beneficiaries in the form of reduced ECR. Thus, use of imported coal in project does not affect the beneficiary".

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