

**MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION**  
5th Floor, "Metro Plaza", Bittan Market, Bhopal - 462 016



**Petition No. 08 of 2016**

**PRESENT:**

**Dr. Dev Raj Birdi, Chairman**

**A.B. Bajpai, Member**

**IN THE MATTER OF:**

**Determination of Generation Tariff for the control period FY 2016-17 to FY 2018-19 based on the tariff petition filed by Madhya Pradesh Power Generating Company Limited (MPPGCL), Jabalpur under Section 62 and 86(1)(a) of the Electricity Act, 2003.**

**M/s M.P Power Generating Company Ltd., Jabalpur**

**PETITIONER**

**Vs.**

- 1. M.P. Power Management Company Ltd., Jabalpur**
- 2. M. P. Power Transmission Co. Ltd., Jabalpur**
- 3. Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Jaipur**
- 4. Uttar Pradesh Power Corporation Ltd., Lucknow**
- 5. MSEB (Holding Co) & Maharashtra State Transmission Co. Ltd., Mumbai**

**RESPONDENTS**

**ORDER****(Passed on this day of 14<sup>th</sup>, July 2016)**

1. Madhya Pradesh Electricity Regulatory Commission (hereinafter referred to as “the Commission or MPERC”) issued MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015 {RG-26(III) of 2015} (hereinafter referred to as “the Regulations” 2015) for the new control period i.e. FY 2016-17 to FY 2018-19. These were notified in the official gazette on 1<sup>st</sup> January’ 2016.
2. Madhya Pradesh Power Generation Company Ltd. (hereinafter referred to as “the petitioner” or “MPPGCL”) filed the Multi Year Tariff petition on 1<sup>st</sup> March’ 2016, for determination of Generation Tariff of its Thermal and Hydro Power Stations for the control period of FY 2016-17 to FY 2018-19. The subject petition is filed under section 62 and 86 (1) (a) of the Electricity Act, 2003 and in terms of MPERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2015.
3. The Commission has scrutinized the subject petition filed by MPPGCL based on the principles, methodology and the norms specified in the aforesaid MPERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2015.
4. The details of the power stations operated by MPPGCL and covered in the subject petition are as given below:

**Table 1: Details of the Power Stations**

S. No	Power Stations	Installed Capacity (MW)	Year of Commissioning
<b>Thermal Power Stations</b>			
1	ATPS PH III	1X210MW=210 MW	10.09.2009
2	STPS (Sarni) PH II &III	1X200+3X210=830 MW	1980-84
3	STPS (Sarni) PH IV	2X250=500 MW	16.03.2014
4	SGTPS (Birsinghpur) PH I&II	4X210=840 MW	1993 to 1999
5	SGTPS (Birsinghpur) PH III	1X500=500 MW	28.08.2008
6	SSTPS (Khandwa) PH I	2X600=1200 MW	28.12.2014
<b>Hydro Power Stations</b>			
7	Gandhi Sagar	5X23=115 MW	1960 to 1996
8	Pench HPS	2X80=160MW	1986-87
9	Rajghat HPS	3X15=45 MW	1998-99
10	Bargi HPS	2X45 90 MW	1988 & 1992
11	Bansagar PH I	3X105=315 MW	1991 to 1992
12	Bansagar PH II	2X15=30 MW	1997-98
13	Bansagar PH III	3X20=60 MW	2001-02

S. No	Power Stations	Installed Capacity (MW)	Year of Commissioning
14	Bansagar PH IV Jhinna	2X10 =20 MW	30.08.2006
15	Madhikheda	3X20=60 MW	2006-07
16	Birsinghpur	1X20=20 MW	1991-92

5. With regard to ATPS PH II (2X120 MW), the petitioner submitted that the Unit No. 3 & 4 of ATPS PH-II are shutdown since 01.05.2014 & 13.01.2015, respectively. The BoD has resolved to de-commission these units; the approval of GoMP & Central Electricity Authority (CEA) is awaited in the matter, accordingly, petitioner has not considered tariff of ATPS PH-II in the instant petition. With reference to the periodical returns filed with the Commission, MPPGCL has informed the Commission that the approvals of CEA and GoMP have been obtained by MPPGCL for de-commissioning of the aforesaid units.
6. The power station wise Annual Capacity (fixed) charges and Energy (variable) charges filed by the petitioner are as given below:

**Table 2: Power Station Wise Fixed and Energy Charges Filed in the petition**

Power Station	Annual Capacity (Fixed) Charges (₹ in Crores)			Energy Charges (Rs./Unit) FY 2017 to 2019
	FY 2016-17	FY 2017-18	FY 2018-19	
ATPS PH-III	268.65	271.01	270.22	1.685
STPS PH-II&III	431.68	453.81	475.27	2.453
STPS PH-IV	796.94	816.60	802.68	2.074
SGTPS- PH I&II	466.34	489.36	507.01	2.784
SGTPS PH-III	443.46	436.73	429.71	2.458
SSTPS PH-I	1656.31	1646.45	1608.62	2.654
<b>Total Thermal</b>	<b>4063.38</b>	<b>4113.96</b>	<b>4093.51</b>	
Gandhi Sagar	31.79	35.65	38.18	
Pench	29.07	30.71	32.18	
Rajghat	13.91	14.41	12.82	
Bargi	34.57	46.00	54.08	
Bansagar PH-I, II&III	175.85	168.78	171.10	
Bansagar PH-IV (Jhinna)	17.54	17.01	16.46	
Madhikheda	36.55	36.02	35.44	
Birsinghpur	7.24	7.49	7.39	
<b>Total Hydel</b>	<b>346.52</b>	<b>356.07</b>	<b>367.65</b>	
<b>Total</b>	<b>4409.89</b>	<b>4470.03</b>	<b>4461.16</b>	

7. The element wise Annual Capacity (Fixed) Charges filed by the petitioner are as given below:

**Table 3: Element-Wise Annual Capacity (Fixed) Charges Filed: (₹ in Crores)**

	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Annual Capacity Charges	Return on Equity	663.28	677.70	677.70
	Depreciation	849.64	868.64	873.36
	Interest on Term Loan & Finance Charges	1137.77	1078.18	982.82
	O&M Expenses	970.56	1031.95	1097.14
	Interest on Working Capital	431.08	434.25	436.17
Other Charges		170.94	179.25	187.62
Pension & Terminal Benefits		186.63	200.06	206.35
<b>Total</b>		<b>4409.89</b>	<b>4470.03</b>	<b>4461.16</b>

8. The break-up of other charges filed by the petitioner are as given below:

**Table 4: Other Charges Filed: (₹ in Crores)**

Other Charges	FY 2016-17	FY 2017-18	FY 2018-19
Compensation Allowance	6.30	6.30	6.30
Special Allowance	77.15	82.05	87.26
MPERC Fees	1.50	1.50	1.50
Water Charges	80.72	83.5	86.29
Cost of Chemicals& Lubricants	5.28	5.90	6.28
<b>Total</b>	<b>170.94</b>	<b>179.25</b>	<b>187.62</b>

9. The petitioner broadly submitted the following:

- a. *“MPPGCL entered into Power Purchase Agreement (PPA) with MP Tradeco (now M.P.P.M.C.L.) on 29.11.2006. The PPA provides that the tariff payable by Tradeco to Genco and terms & conditions related thereto shall be as determined by the State Commission. MPPGCL has therefore raised the bills of energy sold to Tradeco since 1.6.2005 as per the tariff determined by the Commission from time to time.”*
- b. *“GoMP vide letter No. 6074/13/12/02 dated 29.03.12 has changed the name of MP Power Trading Company Ltd to MP Power Management Company Ltd and it has been made the holding company for all the DISCOMS of MP. Further, GoMP vide its notification dated 26.04.2012 has merged M.P. State Electricity Board with MP Power Management Company Ltd.”*

- c. *“MPPMCL and the three DISCOMS of MP have entered into a management and corporate functions agreement on 05.06.2012, whereby the three DISCOMS have 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 Tribunals, High Courts, Supreme Court and CEA etc.. Therefore the three DISCOMS have not been made as respondents, separately.”*
- d. *“Rajasthan Rajya Vidyut Prasaran Nigam (RRVPL), Jaipur, (hereinafter referred as Respondent No. 3) has 50% share in Gandhi Sagar Hydro Power Station operated by MPPGCL. At the same time, MPPGCL has 50% share in the Ranapratap Sagar Hydro Power Station and Jawahar Sagar Hydro Power Station operated by the Respondent No. 3). Similarly Uttar Pradesh Power Corporation Ltd (UPPCL), Lucknow (hereinafter referred as Respondent No. 4) and MSEB (Holding Co) & Maharashtra State Transmission Co. Ltd , Mumbai (hereinafter referred as Respondent No. 5) have 50% share in Rajghat Hydro Power Station and 33.3% share in Pench Hydro Power Station operated by MPPGCL, respectively.”*
- e. *“The performance parameters and other cost elements have been duly elaborated in the petition. Based on these, the cost of generation has been determined under four heads:*
- a) Energy charges (ECR)*
  - b) Fixed Cost*
  - c) Other charges*
  - d) Pension & Terminal Benefit”*
- f. *“ The Commission vide order dated 30.01.2016 has recently approved the True up of Generation tariff of FY 2013-14 & the copy of said order has been served to MPPGCL vide letter dated 09.02.2013. In accordance MPERC Regulation 2015, the Normative Loans and Equity amount as approved by the Commission in the said order has been considered by MPPGCL in the instant petition for determination of Intt. Charges and RoE for the control period FY 17 to FY 19.”*
- g. *“The Commission has granted Provisional Tariff for SSTPP, Khandwa Stage-1 (1200 MW). The Final Generation Tariff Petition is under preparation & shall be filed shortly. The Gross Block of fixed assets of this Power Station has been considered as per the Books of Account of FY 15. The figures of Loan & Equity considered are as per drawl statement and shall be further elaborated at the time of submission of Final tariff petition of SSTPP, Khandwa Stage-1 (1200 MW).”*

- h. *“Proviso 31.2 of MPERC Generation Tariff Regulations 2015 provides return on equity to be computed by grossing up the base rate with the normal tax rate applicable to the Generating Company. **MPPGCL has not paid any tax during past 3 financial years**; accordingly the ROE has been worked out at base rate of 15.5%. It is humbly requested before the Commission to kindly permit of actual tax (if any) payable during the control period FY 17 to FY 19 during truing up exercise as per proviso 31.3 of MPERC Regulation 2015.”*
- i. *“The Unit No.3&4 (2x120MW) of ATPS PH-2 are shutdown since 01.05.2014 & 13.01.2015 respectively. The BoD of MPPGCL has resolved to de-commission these units; the approvals of GoMP & Central Electricity Authority (CEA) are awaited in the matter. The same shall be informed to Commission in due course of time. Accordingly MPPGCL has not considered tariff of ATPS PH-2 in the instant petition.”*
- j. *“It is submitted that MPERC may kindly permit to recover additionally on actuals; Taxes, Duties, SLDC charges, Water Charges, Pension & Terminal Benefits, Cost of Chemicals & Consumables, Arrears to be paid to employees, publication expenses etc., levied by various authorities on the petitioner in accordance with the law.”*
10. With the above submissions, the petitioner prayed the following:
- a. *Determine the generation tariff of power stations of MPPGCL for FY 2016-17 to FY 2018-19.*
  - b. *Permit additional recovery on actual payment basis, on account of levies, taxes, duties, SLDC charges, water charges, cost of chemicals & consumables, arrears to be paid to employees, publication expenses, pension & terminal benefits etc., as per MPERC Regulations.*
  - c. *Permit additional recovery on actual tax payment (if any), in case due to any change in the Government policy or otherwise if any tax liability arises during the year.*
  - d. *Permit impact of proposed 7<sup>th</sup> Pay Commission in the O&M norms after its implementation at a later date.*
  - e. *Permit Insurance and Security expenses of plant and machinery of MPPGCL on actual basis in the Truing up exercise of respective years of control period under the head other charges.*
  - f. *Permit projected asset additions during FY 17 & FY 18 in accordance with MPERC regulations 2015.*

## Procedural History

11. Motion hearing in the subject matter was held on 29<sup>th</sup> March' 2016 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 comments/response on the petition if any, by 30<sup>th</sup> April' 2016.
12. By affidavit dated 29<sup>th</sup> April' 2016, Respondent No. 1, M.P. Power Management Company Ltd. has filed its comments on the petition.
13. Vide Commission's letter dated 5<sup>th</sup> May' 2016, the information gaps in the subject petition were communicated to the petitioner and it was asked to file a comprehensive reply along with relevant supporting documents by 26<sup>th</sup> May' 2016.
14. By affidavit dated 26<sup>th</sup> May' 2016, the petitioner filed its response on the issues raised by the Commission along with the request that the information related to performance parameters, energy charges, and incomplete forms being voluminous shall be filed shortly.
15. Further, by affidavit dated 10<sup>th</sup> June' 2016, the petitioner filed partial information and for submission of information regarding GCV and landed price of coal, the petitioner sought one week's time extension. By affidavit dated 18<sup>th</sup> June' 2016, the petitioner filed the balance information regarding GCV and landed price of coal.
16. On perusal of the response filed by the petitioner, it was observed that the information regarding the additional capitalization during FY 2015-16 was lacking clarity. Vide Commission's letter dated 21<sup>st</sup> June' 2016, the information gaps regarding the additional capitalization during FY 2015-16 claimed 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 28<sup>th</sup> June' 2016. By affidavit dated 28<sup>th</sup> June' 2016, the petitioner filed its reply to the issues of additional capitalization claimed during FY 2015-16.
17. The details of the issues raised in Commission's letters dated 26<sup>th</sup> May' 2016, and 21<sup>st</sup> June' 2016, along with the response filed by the petitioner by affidavit dated 26<sup>th</sup> May' 2016, 10<sup>th</sup> June' 2016, 18<sup>th</sup> June' 2016 and 28<sup>th</sup> June' 2016, are mentioned in Annexure-I enclosed with this order.

18. The public notices inviting comments/suggestions from stakeholders was published on 2<sup>nd</sup> June' 2016, in the following news papers:
- a) Nai Duniya, Jabalpur (Hindi)
  - b) Swadesh, Gwalior (Hindi)
  - c) Agniban, Bhopal (Hindi)
  - d) Patrika, Indore (Hindi)
  - e) Central Chronical, Bhopal (English)
19. Vide letter dated 10<sup>th</sup> June' 2016, MPPGCL has filed its reply on comments offered by (M.P. Power Management Company Ltd.) Respondent No. 1 in the matter. The comments offered by MPPMCL and the response of MPPGCL are mentioned in Annexure-II enclosed with this order.
20. Vide letter dated 20<sup>th</sup> June' 2016, the petitioner informed that no comment from any stakeholder was received in the matter. The public hearing in the subject petition was held on 21<sup>st</sup> June' 2016, wherein only the representatives of the petitioner appeared.



## Capital Cost

### Petitioner's submission:

21. The petitioner has filed the Gross Fixed Assets (GFA) as on 1<sup>st</sup> April' 2016 on the following basis:
- a. For all power stations except SSTPP PH 1, the closing Gross Fixed Assets as filed in the true up petition for FY 2014-15 are considered as opening Gross Fixed Assets as on 1<sup>st</sup> April' 2015. Further, provisional additional capitalization are considered for FY 2015-16 to work out the Opening Gross Fixed Assets as on 1<sup>st</sup> April' 2016.
  - b. For SSTPP PH 1, the closing Gross Fixed Assets as on 31<sup>st</sup> March' 2015, as per the audited accounts is considered as base figure as on 1<sup>st</sup> April' 2015. The provisional additional capitalization is considered for FY 2015-16 to work out the Opening Gross Fixed Assets as on 1<sup>st</sup> April' 2016.
  - c. The power station-wise details of Gross Fixed Assets as on 1<sup>st</sup> April' 2015, additional capitalization during FY 2015-16 and Gross Fixed Assets as on 1<sup>st</sup> April 2016 filed by the petitioner are as given below:

**Table 5: Opening GFA as on 01.04.2016**

(₹in Crores)

S. No	Power Stations	GFA as on 01.04.2015	Provisional Additions for FY 2015-16	GFA as on 01.04.2016
1	ATPS PH-III	1157.50	2.53	1160.03
2	STPS PH-II&III	628.02	0.00	628.02
3	STPS PH-IV	3149.64	76.83	3226.47
4	SGTPS PH-I&II	2195.80	5.36	2201.16
5	SGTPS PH-III	2120.00	3.52	2123.51
6	SSTPP PH-I	7206.71	144.47	7351.18
	<b>Total Thermal</b>	<b>16457.67</b>	<b>232.71</b>	<b>16690.37</b>
7	Gandhi Sagar	10.40	0.00	10.40
8	Pench	100.39	0.00	100.39
9	Rajghat	83.12	0.00	83.12
10	Bargi	87.26	0.00	87.26
11	Bansagar PH-I,II&III	1169.13	0.00	1169.13
12	Bansagar PH-IV	117.09	0.00	117.09
13	Madhikheda	217.99	0.00	217.99
14	Birsinghpur	52.15	0.00	52.15
	<b>Total Hydro</b>	<b>1837.53</b>	<b>0.00</b>	<b>1837.53</b>
	<b>Total</b>	<b>18295.20</b>	<b>232.71</b>	<b>18527.90</b>

22. The details of Gross Fixed Assets as on 1<sup>st</sup> April' 2016, additional capitalization claimed during the control period of FY 2016-17 to 2018-19 and closing GFA as on 31<sup>st</sup> March' 2019 as filed by the petitioner are as given below:

**Table 6: Opening GFA, Asset Additions during Control Period and Closing GFA Filed** (₹ in Crores)

S. No	Power Station	GFA as on 01.04.2016	Asset Additions			GFA as on 31.03.2019
			FY 2016-17	FY 2017-18	FY 2018-19	
1	ATPS PH-III	1160.03	20.14	13.86	0.00	1194.03
2	STPS PH-II&III	628.02	0.00	0.00	0.00	628.02
3	STPS PH-IV	3226.47	333.68	0.00	0.00	3560.15
4	SGTPS PH-I&II	2201.16	59.89	77.08	0.00	2338.13
5	SGTPS PH-III	2123.51	1.60	0.86	0.00	2125.97
6	SSTPP PH-I	7351.18	286.40	1.33	0.00	7638.91
	<b>Total Thermal</b>	<b>16690.37</b>	<b>701.71</b>	<b>93.13</b>	<b>0.00</b>	<b>17485.21</b>
7	Gandhi Sagar	10.40	6.24	5.20	0.00	21.83
8	Pench	100.39	0.41	2.05	0.00	102.84
9	Rajghat	83.12	0.21	2.05	0.00	85.38
10	Bargi	87.26	0.05	5.53	0.00	92.83
11	Bansagar PH-I,II&III	1169.13	0.21	7.64	0.00	1176.97
12	Bansagar PH-IV	117.09	0.00	0.00	0.00	117.09
13	Madhikheda	217.99	0.05	2.05	0.00	220.08
14	Birsinghpur	52.15	0.05	2.05	0.00	54.24
	<b>Total Hydro</b>	<b>1837.53</b>	<b>7.22</b>	<b>26.57</b>	<b>0.00</b>	<b>1871.27</b>
	<b>Total</b>	<b>18527.90</b>	<b>708.93</b>	<b>119.70</b>	<b>0.00</b>	<b>19356.48</b>

### Provisions in Regulation:

23. With regard to capital cost, Regulation 15 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 provides that,

*“15.1 Capital cost as determined by the Commission after prudence check in accordance with this Regulation shall form the basis of determination of tariff for existing and new projects.*

*15.2 Capital cost for a Project shall include*

- (a) *the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (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;*

*Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period shall form part of the capital cost.*

- (c) Increase in cost in contract packages as approved by the Commission;*
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 17 of these Regulations;*
- (e) capitalised Initial spares subject to the ceiling rates specified in Regulation 19 of these Regulations;*
- (f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 20 of these Regulations; and*
- (g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 24 of these Regulations;*

*15.3 The Capital cost of an existing project shall include the following:*

- (a) the capital cost admitted by the Commission prior to 1.4.2016 duly trued up by excluding liability, if any, as on 1.4.2016;*
- (b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 20; and*
- (c) expenditure on account of renovation and modernization as admitted by the Commission in accordance with Regulations 21.*

### **Commission's Analysis:**

- 24. The Commission issued the last True-up Order for FY 2014-15 on 20th May' 2016, based on the Annual Audited Accounts for FY 2014-15. True-Up Petition for FY 2015-16 is yet to be filed by the petitioner.
- 25. To work out the capital cost as on 1st April' 2016 for all power stations except SSTPP PH 1, the Commission has considered the closing Gross Fixed Assets as on 31st March' 2015 as admitted in its true-Up order dated 20th May' 2016 for FY 2014-15 as a base figure as on 1st April' 2015. The capital cost of SSTPP PH 1 is considered in this order based on the order dated 10th November' 2014 and 18th March' 2015 for Unit 1 and Unit 2 respectively for determination of provisional tariff for SSTPP PH 1.

26. The power station wise details of Gross Fixed Assets as on 1st April' 2015 considered in this order are as given below:

**Table 7: Gross Fixed Assets as on 1.04.2015 (₹ in Crore)**

S. No	Power Stations	GFA as on 01.04.2015
1	ATPS PH-III	1058.22
2	STPS PH-II&III	622.49
3	STPS PH-IV	3062.94
4	SGTPS PH-I&II	2186.50
5	SGTPS PH-III	2031.04
6	SSTPP PH-I	6736.85
	<b>Total Thermal</b>	<b>15698.04</b>
7	Gandhi Sagar	10.39
8	Pench	100.39
9	Rajghat	82.81
10	Bargi	86.97
11	Bansagar PH-I,II&III	1167.35
12	Bansagar PH-IV	116.85
13	Madhikheda	217.99
14	Birsinghpur	52.15
	<b>Total Hydro</b>	<b>1834.90</b>
	<b>Total</b>	<b>17532.94</b>

**Additional Capitalization during FY 2015-16**

27. The petitioner filed the provisional additional capitalization during FY 2015-16 and its corresponding funding as given below:

**Table 8: Additional Capitalization and Funding during FY 2015-16 (₹ in Crores)**

Sr. No	Particular	Additional Capitalization during FY 2015-16	Loan	Equity
1	ATPS PH III	2.53	2.53	00.00
2	SGTPS PH I&II	5.36	5.36	00.00
3	SGTPS PH III	3.52	3.52	00.00
4	STPS PH IV	76.83	61.46	15.37
5	SSTPP PH-I	144.47	120.00	24.47
	<b>Total</b>	<b>232.71</b>	<b>192.87</b>	<b>39.84</b>

28. Vide Commission's letter dated 05<sup>th</sup> May' 2016, the petitioner was asked to file the basis of claiming the aforesaid additional capitalization of ₹232.71 Crore during FY 2015-16.

29. In response, by affidavit dated 26<sup>th</sup> May' 2016, the petitioner submitted the following:

*“The proviso 7.11 of MPERC Regulation 2015 provides that in case of the existing projects, the generating company may be allowed tariff based on the admitted capital cost as on 1.4.2016 by Commission and projected additional capital expenditure for the tariff period 2016-17 to 2018-19 as per the provisions of said Regulations.*

*The Commission in MYT order for FY-14 to FY 16, Final Tariff order for STPS PH-4 and Bansagar PH-4 (Jhinna) and Provisional /Ad-Interim order for SSTPP PH-1 has determined the tariff and admitted the capital cost of the existing projects up to 31.03.2016.*

*The Commission has recently determined the True up Generation tariff of Power Stations of MPPGCL upto FY 2014-15. Thus, in the instant petition, MPPGCL has considered the Gross Block as on 1.4.2015 as per Audited Books of Accounts of MPPGCL for FY 2014-15.*

*Accordingly, MPPGCL has submitted the Provisional Capital expenditure incurred for FY 2015-16 for arriving at the Gross block as on 01.04.2016 as the finalization of Books of Accounts for FY 2015-16 of MPPGCL is under process. It is to mention that the said Provisional Capital Expenditures are in accordance and governed with the provisos of MPERC Regulation, 2012.*

*The Power station wise statements elaborating the details of Provisional Capital Expenditure during FY 2015-16 are annexed as Annexure-1.*

*The source of funding in respect of aforesaid Provisional Capital Expenditures have already been elaborated at Table No. 9.6.1 page 47 of instant petition.*

*It is humbly requested before the Commission to kindly consider the same.”*

30. The Commission observed that the provisional additional capitalization for FY 2015-16 (last year of last control period) need to scrutinized in accordance with respective MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations.

31. Station-wise details of additional capitalization during FY 2015-16 are as given below:

**(a) ATPS PH-III (1X210 MW)**

32. The petitioner filed the provisional additional capitalization of ₹2.53 Crore in FY 2015-16 in ATPS PH III. By affidavit dated 26<sup>th</sup> May' 2016 in response to the queries raised by the Commission, the petitioner submitted the details of additional capitalization and its funding as given below:

**Table 9: Additional Capitalization during FY 2015-16 (₹in Crores)**

Scheme Details	Administrative Approval	Provisional Addition FY 2015-16	Funding
From original scope of work-balance Works of Main Plant, AHP, CHP& Switchyard Road	Part of approved original project cost	2.53	Through PFC Loan No. 20701002
<b>SUB-TOTAL</b>		<b>2.53</b>	

33. Vide Commission's letter dated 21<sup>st</sup> June' 2016, the petitioner was asked to file several details/ information regarding the additional capitalization during FY 2015-16. By affidavit dated 28<sup>th</sup> June' 2016, the petitioner filed the following regarding the additional capitalization in ATPS PH III:-

*The Provisional asset capitalization amounting to Rs.2.53 Crores have been considered by MPPGCL at ATPS Chachai (210MW) during FY 2015-16 as detailed at Table No.10.8.1 on Page No.59 of the instant petition.*

*The aforesaid capitalization is covered under the Original Scope of Work Estimate of Rs.1242.14 Crores for which approval has been already accorded by GoMP. The copy of said approval has already been submitted before the Commission; however the same is once again annexed as Annexure-1 for ready reference, please.*

*As the extension Unit No.5 of ATPS Chachai (210MW) has been commissioned on 10.09.2009, the same is governed by MPERC Generation Tariff Regulations, 2009. Accordingly, the Cut-off date for the purpose of Additional Capitalization at 210 MW ATPS, Chachai was 31.03.2012.*

*The aforesaid provisional additional capitalization has been claimed under proviso 20.2 (f) of MPERC Regulation, 2012, which provides for admittance of capital expenditure which is considered indispensable by the Commission for running the thermal generating station provided & in such case compensation allowance shall not be admissible.*

*The statement elaborating the nature of each work, its provisional cost Funding details is annexed as Annexuer-2.*

34. On scrutiny of the aforesaid details filed by the petitioner, it is observed that the generating unit achieved CoD on 10<sup>th</sup> September' 2009 and the Cut-off date of the unit as per clause 4.1(j) of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2009 was 31.03.2012. The above additional capitalization in ATPS 210 MW is after the cut-off date of the unit. Therefore, such additional capitalization needs to be examined in light of the relevant provisions under Regulations, 2009.
35. Regarding the additional capitalization of thermal power stations after cut-off date, clause 20.2 of the Regulations, 2009 provides as under:

*“The capital Expenditure 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; -----“*

36. On perusal of the above submission, it is observed that the aforesaid additional capitalization claimed in respect of ATPS PH-III (1X210 MW) for FY 2015-16 is beyond cut-off date. Further, this additional capitalization is not covered under any of the counts mentioned above in Regulation 20.2 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulation 2012. Therefore, the Commission has not considered the additional capitalization of ₹ 2.53 crore in this order.

**(b) SGTPS PH-I&II (4X210 MW)**

37. The petitioner filed the provisional additional capitalization of ₹5.36 Crore in FY 2015-16 in SGTPS PH I & II. By affidavit dated 26<sup>th</sup> May' 2016, in response to the queries raised by the Commission, the petitioner submitted the following details of additional capitalization:

**Table 10: Additional Capitalization during FY 2015-16 (₹ in Crores)**

Scheme Details	Administrative Approval	Provisional Addition FY 2015-16	Remark
Supply & Commissioning of Micro Processor based Digital Governors having RGMO & Spares for 3X105 MW Units	6.3	5.36	For Compliance of Indian Electricity Grid Code
<b>SUB-TOTAL</b>		<b>5.36</b>	

38. With regard to funding of additional capitalization for FY 2015-16, in Table No. 9.7.1 of the petition, the petitioner submitted that the additional capitalization is funded through Loan component.
39. Vide Commission's letter dated 21<sup>st</sup> June' 2016, the petitioner was asked to file several details/ information regarding the additional capitalization during FY 2015-16. By affidavit dated 28<sup>th</sup> June' 2016, the petitioner filed the following regarding the additional capitalization in SGTPS PH I & II.

*"The provisional asset addition amounting to Rs.5.36 Crores has been considered by MPPGCL at SGTPS Birsinghpur PH-1&2 during FY 2015-16 as detailed at Table No.10.8.1 on Page No. 59 of the instant petition.*

*The aforesaid projected asset capitalization mainly comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and funding details along with supporting documents is annexed as Annexure-5.*

*The PH-1&2 of SGTPS Birsinghpur has been transferred to MPPGCL through Final Opening Balance Sheet notified by GoMP & is governed by MPERC (Terms and Conditions for determination of Generation Tariff), Regulations 2005 (G-26 of 2005), which do not specify any Cut-off date for the purpose of additional Capitalization.*



*The said additional capitalization is claimed under the proviso 19 (2.9) (f) of MPERC Regulations 2005, which provides any additional works / services, that became necessary for efficient and successful operation of generating station.”*

40. It is observed that the above assets have been recorded in the Assets- cum Depreciation register of MPPGCL for FY 2015-16 and necessary for compliance of Grid Code, therefore, the additional capitalization of ₹5.36 Crores is provisionally admitted in the this order under applicable MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, which is subject to true up of FY 2015-16 based on the Annual Audited Accounts.
41. The petitioner submitted that the funding of above additional capitalization is met through loan. The same has been considered in this order.

**(c) SGTPS PH-III (1X500 MW)**

42. The petitioner filed the provisional additional capitalization of ₹3.52 Crore in FY 2015-16 in SGTPS PH -III. By affidavit dated 26<sup>th</sup> May’ 2016 in response to the queries raised by the Commission, the petitioner submitted the details of additional capitalization as given below:

**Table 11: Additional Capitalization during FY 2015-16 (₹in Crores)**

Scheme Details	Administrative Approval	Provisional Addition FY 2015-16	Funding
Under original scope of work(Balance works related to 2nd phase Ash bund and balance minor supply of capital spares)	Part of approved original project cost	3.52	Through PFC Loan No. 20102011
<b>SUB-TOTAL</b>		<b>3.52</b>	

43. With regard to funding of additional capitalization for FY 2015-16, in Table No. 9.7.1 of the petition, the petitioner submitted that the additional capitalization is funded through Loan.
44. Vide Commission’s letter dated 21<sup>st</sup> June’ 2016, the petitioner was asked to file several details/ information regarding the additional capitalization during FY 2015-16. By affidavit dated 28<sup>th</sup> June’ 2016, the petitioner filed the following regarding the additional capitalization in SGTPS PH III.

*The provisional asset capitalization amounting to Rs.3.52 Crores has been considered by MPPGCL at SGTPS Birsinghpur (500 MW) during FY 2015-16 as detailed at Table No.10.8.1 on Page No. 59 of the instant petition.*

*These works are covered under the original work estimate of Rs.2300 Crores, approved by GoMP. The copy of approval and relevant supporting documents has already been submitted before the Commission, the same is once again annexed as Annexure-6 for ready reference please.*

*The extension unit No. 5 of SGTPS Birsinghpur (500MW) has been commissioned on 28.08.2008 and governed by MPERC (Terms and Conditions for determination of Generation Tariff), Regulations 2005 (G-26 of 2005), which do not specify any Cut-off date for the purpose of additional Capitalization.*

*The said additional capitalization is claimed under the following proviso of MPERC Regulations, 2005:*

- (1) The Proviso 19 (2.9) (a) of MPERC Regulations, 2005 provides for capital expenditure actually incurred after the commercial date of operation due to deferred liabilities within the original scope of work.*
- (2) The Proviso 19 (2.9) (e) of MPERC Regulations, 2005, which provides for procurement of initial spares included in the original scope of work ceiling Norms laid down in Regulation 18.*
- (3) The Proviso 19 (2.9) (e) of MPERC Regulations, 2005, provides any additional works /services which became necessary for efficient and successful operation of generating station...*

*Further, proviso 20.2 (f) of MPERC Regulations 2012 provides for admittance of capital expenditure which is considered indispensable by the Commission for running the thermal generating station provided & in such case compensation allowance shall not be admissible.*

*The statement elaborating the nature of each work, its provisional cost, funding details is annexed as Annexure-7.*

45. It is observed that the above assets have been recorded in the asset cum depreciation register of MPPGCL for FY 2015-16 and under the original project cost estimate. It is further observed that the expenses are indispensable for running the thermal power station, therefore, the additional capitalization of ₹3.52

Crores is provisionally admitted in this order under MPERC (Terms and Condition for Determination of Generation Tariff) Regulations, which is subject to true up of FY 2015-16 based on Annual Audited Accounts.

46. The petitioner submitted that the funding of above additional capitalization is met through PFC Loan. The same funding is considered in this order.

**(d) STPS PH-IV (2X250 MW)**

47. The petitioner filed the provisional additional capitalization of ₹76.83 Crore in FY 2015-16 in STPS PH IV. By affidavit dated 26<sup>th</sup> May' 2016, in response to the queries raised by the Commission, the petitioner submitted the details of additional capitalization as given below:

**Table 12: Additional Capitalization during FY 2015-16 (₹ in Crores)**

Work Details	Administrative Approval by MPPGCL	Provisional Addition FY 2015-16	Provisional Funding	
			PFC Loan	Equity/Internal Resources
1 Effluent Treatment Plant (ETP)	Part of GoMP approved original project cost	55.55	61.46	15.37
2 Sewage Treatment Plant (STP)		0.8		
3 Air Conditioning System		7.55		
4 Remaining works of Main Power Block (MPB) such as PRDS, commissioning of DG set, Mill Reject Handling System (MRHS)		12.93		
<b>Total</b>		<b>76.83</b>	<b>61.46</b>	<b>15.37</b>

48. Vide Commission's letter dated 21<sup>st</sup> June' 2016, the petitioner was asked to file several details/ information regarding the additional capitalization indicating the amount towards IDC and start up fuel if any during FY 2015-16. In response, by affidavit dated 28<sup>th</sup> June' 2016, the petitioner filed the following regarding the additional capitalization in STPS PH IV.

*The provisional asset capitalization amounting to ₹76.83 Crores has been considered by MPPGCL at Sarni (2X250 MW) during FY 2015-16 as detailed at Table No. 10.8.1 on Page No.59 of the instant petition.*

*The aforesaid capitalization is covered under the Original Scope of Work Estimate of Rs.3514Crores, which has already been approved by the GoMP. The copy of said approval has already been submitted before the Commission in the matter of determination of Final Generation Tariff of STPS PH-4 (petition No.13 of 2015). However, the same is again annexed as Annexure-3 for ready reference.*

*The Date of Commercial operation (CoD) of extension Unit no. 10&11 of STPS, Sarni PH-4 (2X250 MW) is 18.08.2013 & 16.03.2014 respectively. In accordance to MPERC (Terms and Conditions for determination of Generation Tariff), Regulations, 2012, the Cut-off date for the purpose of Additional Capitalization at STPS Sarni PH-4 is 31.03.2017.*

*The said capitalization is claimed under the following proviso of MPERC Regulations, 2012:*

*“20.1 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) Un-discharged liabilities*
- (b) Works deferred for execution.”*

*The statement elaborating the nature of each work, its provisional cost, funding details is annexed as Annexure-4.*

*The amount of IDC/ startup fuel if any under additional capitalization during FY 2015-16 shall be provide after finalization of Annual statement of accounts for FY 2015-16 of MPPGCL.*

49. The petitioner mentioned that the aforesaid additions are on count of un-discharge liability and work deferred for execution. Therefore the additional capitalization during FY 2015-16 is covered under the Regulation 20.1 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2012.
50. It is observed that the additional capitalization of STPS PH IV has been recorded in the asset cum depreciation registers of MPPGCL of FY 2015-16 and within the original cost estimate of ₹3514 Crores, approved by GoMP vide letter dated 25.06.2007.
51. It is further observed that the generating unit achieved CoD on 16.03.2014 and

the Cut-off date of the unit as per proviso 4(j) of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012 is 31.03.2017

52. In view of the above the additional capitalization of ₹ 76.83 crore is considered in this order in terms of the aforesaid MPERC Tariff Regulations, subject to true up based on the Annual Audited Accounts for FY 2015-16. The details of the additional capitalization and funding considered in this order are as given below:-

**Table 13: Approved Capital Cost and Funding** (₹ in Crores)

Particular	Approved Project Cost	Admitted by Commission		
		As on 31.03.2015 as per True Up order	Provisional Additions during FY 2015-16	Provisional Admitted as on 31.03.2016
Assets	3514.00	3062.94	76.83	3139.77
Loan	2811.20	2307.23	61.46	2368.69
Equity	702.80	596.18	15.37	611.55

**(e) SSTPP PH-I (2X600 MW)**

53. The petitioner filed the provisional additional capitalization of ₹144.47 Crore during FY 2015-16 in SSTPP PH I. The tariff petition for determination of final capital cost/tariff is yet to be filed by the petitioner. Thus, the Commission has not considered the additional capitalization filed under this power station.
54. Accordingly, the Commission has considered the opening Gross Fixed Assets as on 01<sup>st</sup> April' 2015 for all generating stations except SSTPP PH 1 as per the true-up order for FY 2014-15 dated 20<sup>th</sup> May' 2016 and additional assets capitalization during the FY 2015-16 as explained in above paras.
55. With regard to SSTPP PH-1 power station, the opening Gross Fixed Assets as on 1<sup>st</sup> April' 2016 as provisionally admitted in the provisional tariff order dated 10<sup>th</sup> November' 2014 and 18<sup>th</sup> March' 2015 for Unit 1 and Unit 2 respectively are considered in this order.
56. Accordingly, the status of opening Gross Fixed Assets (GFA) as on 1<sup>st</sup> April' 2015, addition during FY 2015-16 provisionally considered in this order subject to true up and balance as on 1<sup>st</sup> April' 2016 are as given below:

**Table 14: Gross fixed Assets as on 1<sup>st</sup> April' 2015, addition during FY 2015-16 and balance as on 1<sup>st</sup> April' 2016**  
(₹ in Crores)

S. No	Power Stations	GFA on 01.04.2015	Additions during FY 2015-16	GFA as on 01.04.2016
1	ATPS PH-III	1058.22	0.00	1058.22
2	STPS PH-II&III	622.49	0.00	622.49
3	STPS PH-IV	3062.94	76.83	3139.77
4	SGTPS PH-I&II	2186.50	5.36	2191.86
5	SGTPS PH-III	2031.04	3.52	2034.56
6	SSTPP PH-I	6736.85	0.00	6736.85
	<b>Total Thermal</b>	<b>15698.04</b>	<b>85.71</b>	<b>15783.75</b>
7	Gandhi Sagar	10.39	0.00	10.39
8	Pench	100.39	0.00	100.39
9	Rajghat	82.81	0.00	82.81
10	Bargi	86.97	0.00	86.97
11	Bansagar PH-I,II&III	1167.35	0.00	1167.35
12	Bansagar PH-IV	116.85	0.00	116.85
13	Madhikheda	217.99	0.00	217.99
14	Birsinghpur	52.15	0.00	52.15
	<b>Total Hydro</b>	<b>1834.90</b>	<b>0.00</b>	<b>1834.90</b>
	<b>Total</b>	<b>17532.94</b>	<b>85.71</b>	<b>17618.65</b>

**Additional Capitalization during FY 2016-17 to FY 2018-19**

57. MPPGCL has filed the power station-wise additional capitalization during FY 2016-17 and 2017-18, which is required to be scrutinized on several counts specified in the Regulations 2015. Based on the information made available by MPPGCL, this exercise may be carried out while undertaking true-up for the FY 2016-17 and 2017-18 based on Annual Audited Accounts for the respective year. Hence, the Commission shall consider the impact of asset addition FY 2016-17 and 2017-18 at the time of dealing with the true-up petition of the above years.
58. The petitioner has not filed any additional capitalization during FY 2018-19, so the corresponding funding.

**Funding Status****Equity****Petitioner's submission:**

59. The petitioner worked out the equity balance as on 1<sup>st</sup> April' 2016, on the following basis:
- It has considered the closing equity balance as on 31<sup>st</sup> March' 2014 for all power stations as admitted in the true up order dated 30<sup>th</sup> January' 2016 for FY 2013-14 as opening equity balance as on 1<sup>st</sup> April' 2014 except Bansagar PH 4, STPS PH 4 and SSTPP PH 1.
  - For Bansagar PH 4 and STPS PH 4, closing equity balance as on 31<sup>st</sup> March' 2014 in the tariff order dated 18<sup>th</sup> November' 2015 and 07<sup>th</sup> January' 2016 respectively have been considered as opening equity balance as on 1<sup>st</sup> April' 2014.
  - Further, for FY 2014-15, the equity additions have been considered as filed in true up petition for FY 2014-15 and for FY 2015-16 on projection basis.
  - For SSTPP PH-I, as on 1<sup>st</sup> April' 2016, petitioner has considered the lower of 30% of Gross Fixed Assets and actual equity drawl till 1<sup>st</sup> April' 2016.
60. For FY 2016-17, equity additions have been considered corresponding to proposed fixed assets additions during FY 2016-17 and no equity additions have been proposed during FY 2017-18 and FY 2018-19.
61. The petitioner has filed the equity balance as on 1<sup>st</sup> April' 2016 and additional equity during the control period for FY 2016-17 to FY 2018-19 are as given below:

**Table 15: Opening, Additions and Closing Equity Balance Filed (₹in Crores)**

S. No	Power Station	Equity as on 01.04.2016	Equity Additions			Equity as on 31.03.2019
			FY 2016-17	FY 2017-18	FY 2018-19	
1	ATPS PH-III	246.80	0.00	0.00	0.00	246.80
2	STPS PH-II&III	186.85	0.00	0.00	0.00	186.85
3	STPS PH-IV	616.81	100.10	0.00	0.00	716.91

S. No	Power Station	Equity as on 01.04.2016	Equity Additions			Equity as on 31.03.2019
			FY 2016-17	FY 2017-18	FY 2018-19	
4	SGTPS PH-I&II	656.53	0.00	0.00	0.00	656.53
5	SGTPS PH-III	571.96	0.00	0.00	0.00	571.96
6	SSTPP PH-I	1374.61	85.92	0.00	0.00	1460.53
	<b>Total Thermal</b>	<b>3653.56</b>	<b>186.02</b>	<b>0.00</b>	<b>0.00</b>	<b>3839.58</b>
7	Gandhi Sagar	3.15	0.00	0.00	0.00	3.14
8	Pench	30.12	0.00	0.00	0.00	30.12
9	Rajghat	24.93	0.00	0.00	0.00	24.93
10	Bargi	26.20	0.00	0.00	0.00	26.20
11	Bansagar PH-I,II&III	350.71	0.00	0.00	0.00	350.71
12	Bansagar PH-IV	35.05	0.00	0.00	0.00	35.05
13	Madhikheda	46.25	0.00	0.00	0.00	46.25
14	Birsinghpur	15.65	0.00	0.00	0.00	15.65
	<b>Total Hydro</b>	<b>532.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>532.05</b>
	<b>Total</b>	<b>4185.61</b>	<b>186.02</b>	<b>0.00</b>	<b>0.00</b>	<b>4371.63</b>

### Loan

62. The petitioner worked out the loan balance as on 1<sup>st</sup> April' 2016, on the following basis:
- It has considered the loan balance as on 31<sup>st</sup> March' 2014 for all power stations as admitted in the true up order dated 30<sup>th</sup> January' 2016 for FY 2013-14 as opening loan balance as on 1<sup>st</sup> April' 2014 except Bansagar PH 4, STPS PH 4 and SSTPP PH 1.
  - For Bansagar PH 4 and STPS PH 4 loan balance as on 31<sup>st</sup> March' 2014 in tariff order dated 18<sup>th</sup> November' 2015 and 07<sup>th</sup> January' 2016 respectively have been considered as opening loan balance as on 1<sup>st</sup> April' 2014.
  - Further, for FY 2014-15 loan additions have been considered as filed in true up petition for FY 2014-15 and for FY 2015-16 on projection basis.
  - Repayments have been considered equivalent to depreciation.
  - For SSTPP PH-I, as on 1<sup>st</sup> April' 2015, petitioner has considered the lower of 30% of Gross Fixed Assets and actual equity drawl till 01<sup>st</sup> April' 2015 and



balance funding through debt after reduction on account of repayment equivalent to depreciation during FY 2014-15 and further to work out the Loan balance as on 1<sup>st</sup> April' 16, loan additions during FY 2015-16 corresponding to provisional additional capitalization during FY 2015-16 and repayment equivalent to depreciation during FY 2015-16 has been considered.

63. The petitioner has filed the opening balance of loan as on 1<sup>st</sup> April' 2016, addition and repayment during the control period for FY 2016-17 to FY 2018-19 are as given below:

**Table 16: Opening, Addition, Repayment and Closing Balance of Loan Filed**  
(₹in Crores)

S.No	Power Station	Opening Balance as on 01.04.2016	Loan Additions			Repayments			Closing Balance as on 31.03.2019
			FY 2016-17	FY 2017-18	FY 2018-19	FY 2016-17	FY 2017-18	FY 2018-19	
1	ATPS PH-III	497.49	20.14	13.86	0.00	55.58	56.47	56.84	362.60
2	STPS PH-II&III	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	STPS PH-IV	2232.67	233.58	0.00	0.00	177.62	186.45	186.45	1915.74
4	SGTPS PH-I&II	0.00	59.89	77.08	0.00	45.71	51.63	39.63	0.00
5	SGTPS PH-III	701.29	1.60	0.86	0.00	109.08	109.13	109.12	376.41
6	SSTPP PH-I	5427.21	200.48	1.33	0.00	382.44	390.06	390.09	4466.44
	<b>Total Thermal</b>	<b>8858.66</b>	<b>515.69</b>	<b>93.13</b>	<b>0.00</b>	<b>770.42</b>	<b>793.74</b>	<b>782.13</b>	<b>7121.19</b>
7	Gandhi Sagar	0.00	6.24	5.20	0.00	0.70	1.99	2.57	6.17
8	Pench	0.00	0.41	2.05	0.00	0.41	1.58	0.46	0.00
9	Rajghat	0.00	0.21	2.05	0.00	0.21	2.05	0.00	0.00
10	Bargi	0.00	0.05	5.53	0.00	0.05	1.81	1.96	1.75
11	Bansagar PH-I,II&III	0.00	0.21	7.64	0.00	0.21	7.64	0.00	0.00
12	Bansagar PH-IV	19.13	0.00	0.00	0.00	6.18	6.18	6.18	0.60
13	Madhikheda	57.28	0.05	2.05	0.00	11.36	11.41	11.47	25.13
14	Birsinghpur	0.00	0.05	2.05	0.00	0.05	1.25	0.79	0.01
	<b>Total Hydro</b>	<b>76.41</b>	<b>7.20</b>	<b>26.54</b>	<b>0.00</b>	<b>19.15</b>	<b>33.91</b>	<b>23.43</b>	<b>33.66</b>
	<b>Total</b>	<b>8935.07</b>	<b>522.89</b>	<b>119.67</b>	<b>0.00</b>	<b>789.57</b>	<b>827.65</b>	<b>805.56</b>	<b>7154.85</b>

**Provisions in Regulation:**

64. With regard to funding of the project, Regulation 25 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015 provides that,

**25 Debt-Equity Ratio:**

*25.1 For a project declared under commercial operation on or after 1.4.2016, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:*

*Provided that:*

- a. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:*
- b. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*
- c. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.*

*Explanation.-The premium, if any, raised by the generating company while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station.*

*25.2 The generating company shall submit the resolution of the Board of the company regarding infusion of fund from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station.*

*25.3 In case of the generating station declared under commercial operation prior to 1.4.2016, debt- equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2016 shall be considered.*

*25.4 In case of the generating station declared under commercial operation prior to 1.4.2016, but where debt: equity ratio has not been determined by the*

Commission for determination of tariff for the period ending 31.3.2016, the Commission shall approve the debt : equity ratio based on actual information provided by the generating company.

25.5 Any expenditure incurred or projected to be incurred on or after 1.4.2016 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause 25.1 of this Regulation.

### Commission's Analysis:

#### Equity as on 1<sup>st</sup> April, 2016

65. Regulation 25.3 of MPERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2015 states that "in case of the generating station declared under commercial operation prior to 1<sup>st</sup> April' 2016, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31<sup>st</sup> March' 2016 shall be considered". Thus, the Commission has considered the opening equity as on 1<sup>st</sup> April' 2015, for power stations (excepts SSTPP PH 1) based on the true-up order for FY 2014-15 issued on 20<sup>th</sup> May' 2016.
66. Further as discussed in above paras the equity addition corresponding to assets addition in STPS PH-IV of ₹15.37 crore for FY 2015-16 has been provisionally considered subject to true up based on Annual Audited Accounts.
67. With regard to SSTPP PH-1, the opening equity as on 1<sup>st</sup> April' 2016, as admitted in the provisional tariff order dated 10<sup>th</sup> November' 2014 and 18<sup>th</sup> March' 2015, for Unit 1 and Unit 2 respectively are considered in this order.
68. Based on the above, the power station-wise status of equity as on 1<sup>st</sup> April' 2015, addition during FY 2015-16 and equity as on 01<sup>st</sup> April' 2016, are considered as given below:

**Table 17: Equity as on 01<sup>st</sup> April' 2015, Additions during FY 2015-16 and Equity as on 01<sup>st</sup> April' 2016** (₹ in Crores)

S. No	Power Stations	Equity as on 01.04.2015	Equity Additions for FY 2015-16	Equity as on 01.04.2016
1	ATPS PH-III	246.80	0.00	246.80
2	STPS PH-II&III	184.61	0.00	184.61

S. No	Power Stations	Equity as on 01.04.2015	Equity Additions for FY 2015-16	Equity as on 01.04.2016
3	STPS PH-IV	596.18	15.37	611.55
4	SGTPS PH-I&II	649.45	0.00	649.45
5	SGTPS PH-III	574.82	0.00	574.82
6	SSTPP PH-I	1269.03	0.00	1269.03
	<b>Total Thermal</b>	<b>3520.89</b>	<b>15.37</b>	<b>3536.26</b>
7	Gandhi Sagar	3.15	0.00	3.15
8	Pench	30.12	0.00	30.12
9	Rajghat	24.84	0.00	24.84
10	Bargi	26.11	0.00	26.11
11	Bansagar PH-I,II&III	350.22	0.00	350.22
12	Bansagar PH-IV	35.05	0.00	35.05
13	Madhikheda	46.25	0.00	46.25
14	Birsinghpur	15.65	0.00	15.65
	<b>Total Hydro</b>	<b>531.39</b>	<b>0.00</b>	<b>531.39</b>
	<b>Total</b>	<b>4052.28</b>	<b>15.37</b>	<b>4067.65</b>

#### Loan balances as on 1<sup>st</sup> April' 2016:

69. Regulation 25.3 of MPERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2015 states that "in case of the generating station declared under commercial operation prior to 1<sup>st</sup> April' 2016, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31<sup>st</sup> March' 2015 shall be considered". Thus, to work out the loan as on 01<sup>st</sup> April' 2016, the Commission has considered the loan as on 1<sup>st</sup> April' 2015, for power stations (except SSTPP PH 1) based on the true-up order for FY 2014-15 issued on 20<sup>th</sup> May' 2016.
70. Further, as discussed in foregoing paras the loan addition corresponding to assets additions during FY 2015-16 and repayment equivalent to depreciation for FY 2015-16 have been considered.
71. For SSTPP PH 1 loan balance as on 01<sup>st</sup> April' 2016, has been considered as per the provisional tariff order dated 10<sup>th</sup> November' 2014, and 18<sup>th</sup> March' 2015, for Unit 1 and Unit 2 respectively.
72. Based on the above, the power station-wise status of loan balances as on 1<sup>st</sup> April' 2015, Loan addition, repayment during FY 2015-16 and loan balance as on 1<sup>st</sup> April' 2016, are worked out as given below:

**Table 18: Loan as on 1<sup>st</sup> April' 2015, Addition, Repayment during the FY 2015-16 and loan as on 1<sup>st</sup> April' 2016 (₹in Crores)**

S. No	Power Stations	loan amount as on 01.04.2015	Loan Additions during FY 2015-16	Repayments during FY 2015-16	loan amount as on 01.04.2016
1	ATPS PH-III	554.08	0.00	50.16	503.92
2	STPS PH-II&III	0.00	0.00	0.00	0.00
3	STPS PH-IV	2307.23	61.46	160.34	2208.35
4	SGTPS PH-I&II	0.00	5.36	5.36	0.00
5	SGTPS PH-III	819.59	3.52	104.28	718.83
6	SSTPP PH-I	4598.58	0.00	310.57	4288.01
	<b>Total Thermal</b>	<b>8279.48</b>	<b>70.34</b>	<b>630.71</b>	<b>7719.11</b>
7	Gandhi Sagar	0.00	0.00	0.00	0.00
8	Pench	0.00	0.00	0.00	0.00
9	Rajghat	0.00	0.00	0.00	0.00
10	Bargi	0.00	0.00	0.00	0.00
11	Bansagar PH-I,II&III	0.00	0.00	0.00	0.00
12	Bansagar PH-IV	25.36	0.00	6.12	19.24
13	Madhikheda	68.64	0.00	11.36	57.28
14	Birsinghpur	0.00	0.00	0.00	0.00
	<b>Total Hydro</b>	<b>94.00</b>	<b>0.00</b>	<b>17.48</b>	<b>76.52</b>
	<b>Total</b>	<b>8373.48</b>	<b>70.34</b>	<b>648.19</b>	<b>7795.63</b>

**Cumulative depreciation as on 1<sup>st</sup> April, 2016:**

73. For computation of cumulative depreciation as on 1<sup>st</sup> April' 2016, the Commission has considered the closing cumulative depreciation for all power stations (except SSTPP PH 1) as on 31<sup>st</sup> March' 2015 as approved in true-up order dated 20<sup>th</sup> May' 2016, for FY 2014-15 and depreciation during FY 2015-16 has been computed using the weighted average rate of depreciation as filed in assets cum-depreciation register for FY 2015-16 to arrived at the cumulative depreciation as on 1<sup>st</sup> April' 2016.
74. For SSTPP PH 1, cumulative depreciation as on 1<sup>st</sup> April' 2016, has been considered as per the provisional tariff order dated 10<sup>th</sup> November' 2015, and 18<sup>th</sup> March' 2015, for Unit 1 and unit 2 respectively.
75. In view of the above, the status of cumulative depreciation as on 1<sup>st</sup> April' 2015, addition during FY 2015-16 and cumulative depreciation as on 1<sup>st</sup> April' 2016, are worked out as given below :

**Table 19: Cumulative Depreciation as on 01<sup>st</sup> April' 2015, Addition during FY 2015-16 and Cumulative Depreciation as on 1<sup>st</sup> April' 2016 (₹ in Crores)**

S. No	Power Stations	Cumulative Depreciation as on 01.04.2015	Depreciation for FY 2015-16	Cumulative Depreciation as on 01.04.2016
1	ATPS PH-III	260.76	50.16	310.92
2	STPS PH-II&III	564.72	0.00	564.72
3	STPS PH-IV	199.91	160.34	360.25
4	SGTPS PH-I&II	1571.17	44.13	1615.30
5	SGTPS PH-III	633.20	104.28	737.48
6	SSTPP PH-I	226.20	310.57	536.77
	<b>Total Thermal</b>	<b>3455.96</b>	<b>669.48</b>	<b>4125.44</b>
7	Gandhi Sagar	9.39	0.00	9.39
8	Pench	77.76	1.96	79.72
9	Rajghat	46.48	3.63	50.11
10	Bargi	64.13	1.78	65.91
11	Bansagar PH-I,II&III	657.49	51.83	709.32
12	Bansagar PH-IV	56.45	6.12	62.57
13	Madhikheda	77.67	11.36	89.03
14	Birsinghpur	35.94	0.92	36.86
	<b>Total Hydro</b>	<b>1025.31</b>	<b>77.60</b>	<b>1102.91</b>
	<b>Total</b>	<b>4481.27</b>	<b>747.08</b>	<b>5228.35</b>

### Annual Capacity (fixed) Charges

76. As per Regulation 27 of the Regulations, 2015, the annual Capacity (fixed) Charges shall consist of:
- (a) Return on Equity;
  - (b) Interest on Loan Capital;
  - (c) Depreciation;
  - (d) Interest Charges on Working Capital;
  - (e) Operation and Maintenance Expenses;

### Return on Equity

#### **Petitioner's Submission**

77. The petitioner broadly submitted the following:

*MPPGCL has considered projected additional capitalization during FY 2016-17 & FY 2017-18 as elaborated in chapter of Depreciation. The funding details, including calculation of Normative/excess equity towards projected asset additions during FY 2016-17 & FY 2017-18 are detailed in Table 9.8.1 & Table 9.8.2 respectively of instant petition.*

*Incorporating above, the MPPGCL have worked out Power station wise Return on Equity for FY-17, FY-18 & FY 19 in accordance to the proviso 32 of the Generation Tariff Regulation 2015 at base rate of 15.5%.*

*It is humbly requested before Commission to kindly permit of actual tax (if any) payable during the control period FY 17 to FY 19 during truing up exercise as per proviso 31.3 of MPERC Regulation 2015.*

78. The Power Station wise Return on Equity as filed by petitioner is as given below:-

**Table 20: Return on Equity Filed** (₹in Crores)

S. No	Power Stations	Return on Equity @15.5%		
		FY 2016-17	FY 2017-18	FY 2018-19
1	ATPS PH-III	38.25	38.25	38.25
2	STPS PH-II&III	28.96	28.96	28.96
3	STPS PH-IV	103.36	111.12	111.12
4	SGTPS PH-I&II	101.76	101.76	101.76

S. No	Power Stations	Return on Equity @15.5%		
		FY 2016-17	FY 2017-18	FY 2018-19
5	SGTPS PH-III	88.65	88.65	88.65
6	SSTPS PH-I	219.72	226.38	226.38
7	Gandhi Sagar	0.49	0.49	0.49
8	Pench	4.67	4.67	4.67
9	Rajghat	3.86	3.86	3.86
10	Bargi	4.06	4.06	4.06
11	Bansagar PH-I, II&III	54.36	54.36	54.36
12	Bansagar PH-IV	5.43	5.43	5.43
13	Madhikheda	7.17	7.17	7.17
14	Birsinghpur	2.43	2.43	2.43
<b>Total</b>		<b>663.19</b>	<b>677.60</b>	<b>677.60</b>

### Provisions in the Regulation:

79. Regulation 30 and 31 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 provides that,

#### **30 Return on Equity:**

*“30.1 Return on equity shall be computed in rupee terms, on the equity base capital determined in accordance with Regulation 25.*

*30.2 Return on equity shall be computed at the base rate of 15.5% for thermal generating stations and hydro generating stations.*

*Provided that*

*(a) in case of Projects commissioned on or after 1<sup>st</sup> April, 2016, an additional return of 0.5% shall be allowed if such Projects are completed within the timeline specified in **Appendix-I** :*

*(b) the additional return of 0.5% shall not be admissible if the Project is not completed within the timeline specified above for reasons whatsoever.*

*(c) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the Generating station is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO):*



(d) as and when any of the above requirements are found lacking in a generation station based on the report submitted by the respective SLDC/RLDC, ROE shall be reduced by 1% for the period for which the deficiency continues:

### **31 Tax on Return on Equity:**

31.1 The base rate of return on equity as allowed by the Commission under Regulation 30 shall be grossed up with the effective tax rate for the Year respective financial years. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respective financial year in line with the provisions of the relevant Finance Acts by the concerned generating company. The actual income tax on other income stream including deferred tax i.e., income of non generation business shall not be considered for the calculation of “effective tax rate”.

31.2 Rate of return on equity shall be rounded off to three decimal places and shall 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 31.1 of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation business and the corresponding tax thereon. In case of generating company paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess. For example: - In case of the generating company paying

(i) Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess:

Rate of return on equity =  $15.50 / (1 - 0.2096) = 19.610\%$

(ii) In case of generating company paying normal corporate tax including surcharge and cess:

(a) Estimated Gross Income from generation business for FY 2016-17 is Rs 1000 crore.

(b) Estimated Advance Tax for the year on above is Rs 240 crore.

(c) Effective Tax Rate for the year 2016-17 = Rs 240 Crore / Rs 1000 Crore = 24%

(d) Rate of return on equity =  $15.50 / (1 - 0.24) = 20.395\%$

31.3 *The actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2016-17 to 2018-19 on actual gross income of any financial year shall be trued-up every year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be allowed to be recovered or refunded to beneficiaries on year to year basis.”*

### **Commission’s Analysis**

80. In foregoing paras of this order, the Commission has worked out the power station-wise Equity balances as on 1<sup>st</sup> April’ 2016, considering the following approach:
- a) Equity balances (as on 31<sup>st</sup> March’ 2015) admitted by the Commission in last true-up order for FY 2014-15 for all power stations (except SSTPP PH - 1) covered under that true-up order are considered as the base figures as on 1<sup>st</sup> April’ 2015, for Equity balances.
  - b) Equity additions corresponding to additional capitalization provisionally considered during FY 2015-16 in this order.
  - c) For SSTPP PH 1, Equity balance as admitted by the Commission in provisional tariff order of the units of SSTPP PH-I has been considered as Equity balance as on 1<sup>st</sup> April’ 2016.
81. The power station-wise additional capitalization and its corresponding equity during FY 2016-17 and FY 2017-18 are required to be scrutinized on several counts specified in the Regulations and this exercise may be possible while undertaking true-up for the FY 2016-17 and FY 2017-18 respectively. Hence, the Commission has not considered the equity addition proposed during FY 2016-17 and FY 2017-18 in this order.
82. While calculating the return on equity, the Commission has considered the base rate of return i.e.15.5% as mentioned in above Regulations. Further, with regard to consideration of tax on actual basis, the same shall be dealt by the Commission as per Regulations 31 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 during the true up exercise.

83. Accordingly, the Return on Equity for the control period FY 2016-17 to FY 2018-19 is worked out in this order is as given below:

**Table 21: Return on Equity Allowed** (₹ in Crores)

S. No	Power Stations	Equity as on 01.04.2016	Return on Equity @15.5%		
			FY 2016-17	FY 2017-18	FY 2018-19
1	ATPS PH-III	246.80	38.25	38.25	38.25
2	STPS PH-II&III	184.61	28.61	28.61	28.61
3	STPS PH-IV	611.55	94.79	94.79	94.79
4	SGTPS PH-I&II	649.45	100.66	100.66	100.66
5	SGTPS PH-III	574.82	89.10	89.10	89.10
6	SSTPP PH-I	1269.03	196.70	196.70	196.70
7	Gandhi Sagar	3.15	0.49	0.49	0.49
8	Pench	30.12	4.67	4.67	4.67
9	Rajghat	24.84	3.85	3.85	3.85
10	Bargi	26.11	4.05	4.05	4.05
11	Bansagar PH-I, II&III	350.22	54.28	54.28	54.28
12	Bansagar PH-IV (Jhinna)	35.05	5.43	5.43	5.43
13	Madhikheda	46.25	7.17	7.17	7.17
14	Birsinghpur	15.65	2.43	2.43	2.43
<b>Total</b>		<b>4067.65</b>	<b>630.49</b>	<b>630.49</b>	<b>630.49</b>

### Interest on Loan Capital

#### **Petitioner's submission:**

84. The petitioner has computed the interest on term loan using the weighted average rate of interest on term loan and short term Loan (working capital loan) as given in below table:

**Table 22: Weighted Average Rate of Interest**

Power Stations	PFC	LIC	REC	HUDC O	GOMP	Working Capital	Total
ATPS PH-3	12.70%		12.00%			13.00%	12.67%
STPS PH- 2 & 3	12.99%		12.00%	12.50%	16.50%	13.00%	12.73%
STPS PH-4	12.98%		12.00%			13.00%	12.96%
SGTPS PH 1 & 2	12.99%	8.50%	12.00%		10.50%	13.00%	10.52%
SGTPS PH-3	12.75%		12.00%			13.00%	12.71%

Power Stations	PFC	LIC	REC	HUDC O	GOMP	Working Capital	Total
SSTPS PH-1	12.97%		12.00%			13.00%	12.95%
Gandhi Sagar			12.00%			13.00%	12.29%
Pench			12.00%			13.00%	12.29%
Rajghat			12.00%			13.00%	12.29%
Bargi	12.75%		12.00%			13.00%	12.30%
Bansagar PH- 1,2 &3			12.00%		10.50%	13.00%	12.27%
Bansagar PH-4	12.75%		12.00%			13.00%	12.47%
Madhikheda	12.71%		12.00%		10.50%	13.00%	12.58%
Birsinghpur			12.00%			13.00%	12.30%

85. The petitioner has filed the detail of loan and interest during the control period FY 2016-17 to FY 2018-19 as given in below table:

**Table 23: Loan and Interest Filed** (₹in Crores)

S. No	Power Station	Opening Balance of Loan			Interest Amount		
		31.03.20 17	31.03.20 18	31.03.20 19	FY 2016- 17	FY 2017- 18	FY 2018- 19
1	ATPS PH-III	497.49	462.05	419.44	60.83	55.88	49.57
2	STPS PH-IV	2232.67	2288.63	2102.19	293.02	284.57	260.40
3	SGTPS PH- I&II	0.00	14.18	39.63	0.75	2.83	2.08
4	SGTPS PH-III	701.29	593.81	485.53	82.28	68.58	54.76
5	SSTPS PH-I	5427.21	5245.25	4856.53	690.99	654.04	603.62
6	Gandhi Sagar	0.00	5.54	8.75	0.34	0.88	0.92
7	Pench	0.00	0.00	0.46	0.00	0.03	0.03
8	Bargi	0.00	0.00	3.71	0.00	0.23	0.34
9	Bansagar PH- IV	19.13	12.95	6.78	2.00	1.23	0.46
10	Madhikheda	57.28	45.97	36.60	6.49	5.19	3.88
11	Birsinghpur	0.00	0.00	0.79	0.00	0.05	0.05
12	HQ	0.93	19.27	69.79	1.06	4.68	6.71
<b>Total</b>		<b>8936.01</b>	<b>8687.65</b>	<b>8030.20</b>	<b>1137.77</b>	<b>1078.18</b>	<b>982.82</b>

### Provisions in Regulation

86. With regards to interest and finance charges, Regulation 32 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015, provides that,

*“32.1 The loans arrived at in the manner indicated in Regulation 25 shall be considered as gross normative loan for calculation of interest on loan.*

32.2 *The normative loan outstanding as on 1.4.2016 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2016 from the gross normative loan.*

32.3 *The repayment for the Year of the Tariff period 2016-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/ period. In case of de- capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.*

32.4 *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.*

32.5 *The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after proving appropriate accounting adjustment for interest capitalized.*

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

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

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

32.7 *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.*

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

32.9 In case of dispute, any of the parties may make an application in accordance with the MPERC (Conduct of Business) Regulation, 2004, as amended from time to time:

*Provided further that beneficiaries shall not withhold any payment on account of the interest claimed by the generating company during the pendency of any dispute arising out of re-financing of loan.*

**Commission's analysis:**

87. Regulation 32.2 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015, provides that the normative loan outstanding as on 1<sup>st</sup> April' 2016, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31<sup>st</sup> March' 2016, from the gross normative loan.
88. In foregoing paras of this order, the Commission has worked out the power station-wise loan balances as on 1st April' 2016, considering the following approach:
- d) Loan balances (as on 31<sup>st</sup> March' 2015) admitted by the Commission in last true-up order for FY 2014-15 for all power stations (except SSTPP PH -1) covered under that true-up order are considered as the base figures as on 01<sup>st</sup> April' 2015, for loan balances.
  - e) Loan additions corresponding to additional capitalization provisionally considered during FY 2015-16 in this order.
  - f) Thereafter, depreciation worked out during FY 2015-16 by applying the rate of depreciation as per Assets cum Depreciation register filed by the petitioner is considered as repayment during the FY 2015-16 for arriving at the opening balances of loan as on 1<sup>st</sup> April' 2016.
  - g) For SSTPP PH 1, loan balance as admitted by the Commission in provisional tariff order of SSTPP PH-I has been considered as loan balance as on 1<sup>st</sup> April' 2016.
  - h) The power station-wise additional capitalization and its corresponding loan during FY 2016-17 and 2017-18 are required to be scrutinized on several counts specified in the Regulations and needs detailed information and documents. This exercise may be possible while undertaking true-up for the

FY 2016-17 and 2017-18 respectively. Hence, the Commission has not considered the loan addition proposed during FY 2016-17 and 2017-18 in this order.

89. Power station wise weighted average rate of interest is worked out by the Commission using the interest rate on term loan is as given in table below:

**Table 24: Power Station Wise Weighted Average Rate of Interest**

Power Stations	PFC	LIC	REC	HUDCO	GOMP	Total
ATPS PH-3	12.70%		12.00%			12.67%
STPS PH- 2 & 3	12.99%		12.00%	12.50%	16.50%	12.70%
STPS PH-4	12.98%		12.00%			12.96%
SGTPS PH 1 &2	12.99%	8.50%	12.00%		10.50%	10.11%
SGTPS PH-3	12.75%		12.00%			12.70%
SSTPS PH-1	12.97%		12.00%			12.95%
Gandhi Sagar			12.00%			12.00%
Pench			12.00%			12.00%
Rajghat			12.00%			12.00%
Bargi	12.75%		12.00%			12.00%
Bansagar PH-1,2 &3			12.00%		10.50%	11.97%
Bansagar PH-4	12.75%		12.00%			12.35%
Madhikheda	12.71%		12.00%		10.50%	12.55%
Birsinghpur			12.00%			12.00%

90. Based on the above, the plant wise interest on loan capital including the interest on excess equity (considered as normative loan) is worked out during the control period is as given below:

**Table 25: Interest on Loan Allowed** (₹ in Crores)  
**ATPS PH-III**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Loan balance for the Year	Rs. Cr	503.92	453.76	403.60
Repayment during the Year	Rs. Cr	50.16	50.16	50.16
Closing balance of Loan for the Year	Rs. Cr	453.76	403.60	353.44
<b>Average Loan for the Year</b>	<b>Rs. Cr</b>	<b>478.84</b>	<b>428.68</b>	<b>378.52</b>
Wt. Average Rate of Interest	%	12.67%	12.67%	12.67%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>60.66</b>	<b>54.30</b>	<b>47.95</b>

**STPS PH-IV**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Loan balance for the Year	Rs. Cr	2208.35	2046.02	1883.70
Repayment during the Year	Rs. Cr	162.33	162.33	162.33
Closing balance of Loan for the Year	Rs. Cr	2046.02	1883.70	1721.37
<b>Average Loan for the Year</b>	<b>Rs. Cr</b>	<b>2127.19</b>	<b>1964.86</b>	<b>1802.53</b>
Wt. Average Rate of Interest	%	12.96%	12.96%	12.96%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>275.72</b>	<b>254.68</b>	<b>233.64</b>

**SGTPS PH-III**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Loan balance for the Year	Rs. Cr	718.83	614.45	510.08
Repayment during the Year	Rs. Cr	104.37	104.37	104.37
Closing balance of Loan for the Year	Rs. Cr	614.45	510.08	405.71
<b>Average Loan for the Year</b>	<b>Rs. Cr</b>	<b>666.64</b>	<b>562.27</b>	<b>457.90</b>
Wt. Average Rate of Interest	%	12.70%	12.70%	12.70%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>84.65</b>	<b>71.40</b>	<b>58.15</b>

**SSTPP PH-1**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Loan balance for the Year	Rs. Cr	4288.01	3977.44	3666.87
Repayment during the Year	Rs. Cr	310.57	310.57	310.57
Closing balance of Loan for the Year	Rs. Cr	3977.44	3666.87	3356.30
<b>Average Loan for the Year</b>	<b>Rs. Cr</b>	<b>4132.73</b>	<b>3822.16</b>	<b>3511.59</b>
Wt. Average Rate of Interest	%	12.95%	12.95%	12.95%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>535.27</b>	<b>495.04</b>	<b>454.82</b>

**Bansagar Ph-IV (Jhinna)**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Loan balance for the Year	Rs. Cr	19.24	13.11	6.99
Repayment during the Year	Rs. Cr	6.12	6.12	6.12
Closing balance of Loan for the Year	Rs. Cr	13.11	6.99	0.87
<b>Average Loan for the Year</b>	<b>Rs. Cr</b>	<b>16.18</b>	<b>10.05</b>	<b>3.93</b>
Wt. Average Rate of Interest	%	12.35%	12.35%	12.35%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>2.00</b>	<b>1.24</b>	<b>0.49</b>



**Madhikheda**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Loan balance for the Year	Rs. Cr	57.28	45.93	34.57
Repayment during the Year	Rs. Cr	11.36	11.36	11.36
Closing balance of Loan for the Year	Rs. Cr	45.93	34.57	23.21
<b>Average Loan for the Year</b>	<b>Rs. Cr</b>	<b>51.60</b>	<b>40.25</b>	<b>28.89</b>
Wt. Average Rate of Interest	%	12.55%	12.55%	12.55%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>6.48</b>	<b>5.05</b>	<b>3.63</b>

91. The summary of interest on loan allowed during control period FY 2016-17 to FY 2018-19 are worked out as given below:-

**Table 26: Summary of Interest on Loan Allowed** (₹ in Crores)

S. No	Power Station	Interest on Loan		
		FY 2016-17	FY 2017-18	FY 2018-19
1	ATPS PH-III	60.66	54.30	47.95
2	STPS PH-II&III	0.00	0.00	0.00
3	STPS PH-IV	275.72	254.68	233.64
4	SGTPS PH-I&II	0.00	0.00	0.00
5	SGTPS PH-III	84.65	71.40	58.15
6	SSTPP PH-I	535.27	495.04	454.82
	<b>Total Thermal</b>	<b>956.29</b>	<b>875.42</b>	<b>794.55</b>
7	Gandhi Sagar	0.00	0.00	0.00
8	Pench	0.00	0.00	0.00
9	Rajghat	0.00	0.00	0.00
10	Bargi	0.00	0.00	0.00
11	Bansagar PH-I,II&III	0.00	0.00	0.00
12	Bansagar PH-IV	2.00	1.24	0.49
13	Madhikheda	6.48	5.05	3.63
14	Birsinghpur	0.00	0.00	0.00
	<b>Total Hydel</b>	<b>8.47</b>	<b>6.29</b>	<b>4.11</b>
	<b>Total</b>	<b>964.77</b>	<b>881.71</b>	<b>798.66</b>

**Depreciation****Petitioner's submission:**

92. The petitioner broadly submitted the following:-

*The depreciation on the Gross Block has been computed based on the following principles:-*

- (i) The rates for depreciation are considered as approved by the Commission in Appendix II of MPERC Regulation of 2015.
- (ii) The salvage value of assets is considered as 10% i.e. none of the assets is depreciated more than 90% of the gross value.
- (iii) Wherein the asset additions are made during the year, the depreciation is charged on prorata basis.
- (iv) As per proviso 33.7 of MPERC Regulation 2015 specifies that the rate of depreciation continued to be charged at the rate specified in Appendix-II till cumulative depreciation reaches 70%. Thereafter the remaining depreciable value is spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.
- (v) The assets in the records of MPPGCL are only for its own share hence depreciation is computed for MPPGCL share only.
- (vi) The units of ATPS PH-2 Chachai are to be decommissioned shortly, accordingly the Gross Block of ATPS PH-2 is not considered in the instant petition.

Table 27: Station wise Depreciation Filed

(₹ in Crores)

Station	Op. Balance as on 1-4-2016		Depreciation			Cl. Balance as on 31-03-2019		Cl. Acc Dep. As % of GB
	Asset GB	Acc. Dep.	FY 17	FY 18	FY 19	Asset GB	Acc. Dep.	
1 ATPS PH-3	1160.03	338.07	55.58	56.47	56.84	1194.03	506.95	42%
2 STPS PH-2&3	628.02	564.63	0.00	0.00	0.00	628.02	564.63	90%
3 STPS PH-4	3226.47	371.62	177.62	186.45	186.45	3560.15	922.13	26%
4 <b>STPS Total</b>	<b>3854.49</b>	<b>936.24</b>	<b>177.62</b>	<b>186.45</b>	<b>186.45</b>	<b>4188.17</b>	<b>1486.75</b>	<b>35%</b>
5 SGTPS PH-1&2	2201.16	1619.68	45.71	51.63	55.14	2338.13	1772.16	76%
6 SGTPS PH-3	2123.51	778.97	109.08	109.13	109.12	2125.97	1106.31	52%
7 <b>SGTPS Total</b>	<b>4324.68</b>	<b>2398.65</b>	<b>154.79</b>	<b>160.76</b>	<b>164.27</b>	<b>4464.11</b>	<b>2878.47</b>	<b>64%</b>
8 <b>SSTPP PH-1 Total</b>	<b>7351.18</b>	<b>622.81</b>	<b>382.44</b>	<b>390.06</b>	<b>390.09</b>	<b>7638.91</b>	<b>1785.39</b>	<b>23%</b>
9 <b>Thermal</b>	<b>16690.37</b>	<b>4295.77</b>	<b>770.42</b>	<b>793.74</b>	<b>797.64</b>	<b>17485.2</b>	<b>6657.57</b>	<b>38%</b>
10 Gandhi Sagar	10.40	9.36	0.70	1.99	2.57	21.83	14.62	67%
11 Pench	100.39	79.43	1.56	1.58	1.58	102.84	84.15	82%
12 Rajghat	83.12	50.13	3.62	3.67	1.71	85.38	59.14	69%

Station		Op. Balance as on 1-4-2016		Depreciation			Cl. Balance as on 31-03-2019		Cl. Acc Dep. As % of GB
		Asset GB	Acc. Dep.	FY 17	FY 18	FY 19	Asset GB	Acc. Dep.	
13	Bargi	87.26	65.82	1.70	1.81	1.96	92.83	71.29	77%
14	Bansagar PH-1,2&3	1169.13	681.99	51.15	39.52	37.51	1176.97	810.17	69%
15	Bansagar PH-4	117.09	48.28	6.18	6.18	6.18	117.09	66.81	57%
16	Madhikhe da	217.99	89.36	11.36	11.41	11.47	220.08	123.60	56%
17	Birsinghpur	52.15	37.47	1.30	1.25	0.92	54.24	40.94	75%
18	<b>Total Hydro</b>	<b>1837.53</b>	<b>1061.85</b>	<b>77.56</b>	<b>67.42</b>	<b>63.90</b>	<b>1871.27</b>	<b>1270.72</b>	<b>68%</b>
19	HQ	2.05	1.04	1.67	7.48	11.82	80.05	22.00	27%
20	<b>Grand Total</b>	<b>18529.95</b>	<b>5358.66</b>	<b>849.64</b>	<b>868.64</b>	<b>873.36</b>	<b>19436.5</b>	<b>7950.29</b>	<b>41%</b>

### Provisions of the Regulation:

93. Regulation 33 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 provides that,

*33.1 Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof. In case of the tariff of all the units of a generating station for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station taking into consideration the depreciation of individual units.*

*Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station for which single tariff needs to be determined.*

*33.2 The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station, weighted average life for the generating station shall be applied. Depreciation shall be chargeable from the first year at the commercial operation.*

*33.3 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.*

*Provided also that any depreciation disallowed on account of lower availability of generating station or generating unit shall not be allowed to be recovered at a later stage during the useful life and extended life.*

*Provided also that salvage value for IT equipment and softwares shall be considered as NIL and 100 % value of the assets shall be considered depreciable.*

*33.4 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.*

*33.5 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 31<sup>st</sup> 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.*

*33.6 In case of the existing Projects, the balance depreciable value as on 1.4.2016 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2013 from the gross depreciable value of the assets.*

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

*33.8 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.”*

*33.9 The generating company shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.*

*33.10 In case of de-capitalization of assets in respect of generating station or unit thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services.*

### **Commission’s Analysis:-**

94. In foregoing paras of this order, the Commission has worked out the power station-wise Accumulated Depreciation balances as on 1st April’ 2016, considering the following approach:
- i) Accumulated Depreciation balances (as on 31<sup>st</sup> March’ 2015) admitted by the Commission in last true-up order for FY 2014-15 for all power stations (except SSTPP PH -1) covered under that true-up order are considered as the base figures as on 01<sup>st</sup> April’ 2015, for Accumulated Depreciation balances.
  - j) Thereafter, depreciation worked out during FY 2015-16 by applying the rate of depreciation as per assets cum depreciation register filed by the petitioner for arriving at the opening balances of Accumulated Depreciation as on 1<sup>st</sup> April’ 2016. Whereas the power station in which the cumulative depreciation have already been reach to 70%, the depreciation rate as considered as per the last true up order by spreading over the balance depreciable value over the remaining life of the project.
  - k) For SSTPP PH 1, Accumulated Depreciation balance as admitted by the Commission in provisional tariff order of SSTPP PH-I has been considered as Accumulated Depreciation balance as on 1<sup>st</sup> April’ 2016.
95. The power station-wise additional capitalization during FY 2016-17 and FY 2017-18 are required to be scrutinized on several counts specified in the Regulations and this exercise may be possible while undertaking true-up for the FY 2016-17 and FY 2017-18 respectively. Hence, the Commission has not considered the additional capitalization claimed during FY 2016-17 and FY 2017-18 in this order.

96. The depreciation on the Gross Fixed Assets (considered as on 1<sup>st</sup> April' 2016) is worked out on the following basis :
- (i) The opening Gross Fixed assets for all power plants (excepts SSTPP PH 1) as 1<sup>st</sup> April' 2016 is worked out by considering the closing GFA as per true up order for FY 2014-15 and additions during FY 2015-16. With regard to SSTPP PH 1 the opening Gross Fixed assets as on 1<sup>st</sup> April' 2016 is considered as per the provisional order of SSTPP PH 1.
  - (ii) The salvage value of assets is considered as 10% of the Gross Fixed Assets i.e. none of the assets is depreciated more than 90% of the gross fixed assets. The Cumulative Depreciation for STPS PH-II & III and Gandhi Sagar have already reached the limit of 90%, therefore no depreciation has been allowed for this power station during the control period.
  - (iii) The rate of depreciation is continued to be charged at the rate specified in the Regulations till cumulative depreciation reaches 70%. Therefore, the remaining depreciable value of assets is spread over the remaining life of the asset such that the maximum depreciation does not exceed 90% i.e. the cumulative depreciation of Birsinghpur shall reach up to 70% during the control period. Therefore, the balance depreciable value of assets spread over the remaining life of the power stations.
  - (iv) Cumulative depreciation of SGTPS PH I&II, PENCH and Bargi have crossed the limit 70% at the beginning of the control period, therefore the depreciation rate as considered in the last true up order have been considered in the instant order.
  - (v) As the Commission has considered the additional capitalization upto FY 2015-16 in this order, therefore, depreciation during the control period FY 2016-17 to FY 2018-19 has been computed for all power stations (except SSTPP PH 1) using the depreciation rate as per assets cum depreciation register for FY 2015-16 filed by the petitioner for all the power stations. For Bansagar PH-I, II & III depreciation rate has been considered as per depreciation register for FY 2015-16 to FY 2018-19 filed by petitioner. For SSTPP PH 1 depreciation during the control period has been computed using the depreciation rate as per the provisional tariff order for Unit 1 and unit 2 respectively.
97. Based on the above, the power station-wise depreciation is worked out in this order as given below :

**Table 28: Depreciation Allowed  
ATPS PH-III****(₹ in Crores)**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	1058.22	1058.22	1058.22
Opening Cumulative Depreciation	₹ Cr	310.92	361.08	411.24
Opening Cumulative Depreciation % of the GFA	%	29.38%	34.12%	38.86%
Rate of Depreciation Charged	%	4.74%	4.74%	4.74%
Closing GFA	₹ Cr	1058.22	1058.22	1058.22
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>50.16</b>	<b>50.16</b>	<b>50.16</b>
Closing Cumulative Depreciation	₹ Cr	361.08	411.24	461.40
Closing Cumulative Depreciation % of the GFA	₹ Cr	34.12%	38.86%	43.60%

**STPS PH-II&III**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	622.49	622.49	622.49
Opening Cumulative Depreciation	₹ Cr	564.72	564.72	564.72
Opening Cumulative Depreciation % of the GFA	%	90.00%	90.00%	90.00%
Rate of Depreciation Charged	%	0.00%	0.00%	0.00%
Closing GFA	₹ Cr	622.49	622.49	622.49
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Closing Cumulative Depreciation	₹ Cr	564.72	564.72	564.72
Closing Cumulative Depreciation % of the GFA	₹ Cr	90.00%	90.00%	90.00%

**STPS PH-IV**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	3139.77	3139.77	3139.77
Opening Cumulative Depreciation	₹ Cr	360.25	522.58	684.90
Opening Cumulative Depreciation % of the GFA	%	11.47%	16.64%	21.81%
Rate of Depreciation Charged	%	5.17%	5.17%	5.17%
Closing GFA	₹ Cr	3139.77	3139.77	3139.77
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>162.33</b>	<b>162.33</b>	<b>162.33</b>
Closing Cumulative Depreciation	₹ Cr	522.58	684.90	847.23
Closing Cumulative Depreciation % of the GFA	₹ Cr	16.64%	21.81%	26.98%

**SGTPS PH-II&III**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	2191.86	2191.86	2191.86
Opening Cumulative Depreciation	₹ Cr	1615.30	1659.48	1703.67
Opening Cumulative Depreciation % of the GFA	%	73.70%	75.71%	77.73%
Rate of Depreciation Charged	%	2.02%	2.02%	2.02%
Closing GFA	₹ Cr	2191.86	2191.86	2191.86
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>44.18</b>	<b>44.18</b>	<b>44.18</b>
Closing Cumulative Depreciation	₹ Cr	1659.48	1703.67	1747.85
Closing Cumulative Depreciation % of the GFA	₹ Cr	75.71%	77.73%	79.74%

**SGTPS PH-III**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	2034.56	2034.56	2034.56
Opening Cumulative Depreciation	₹ Cr	737.48	841.86	946.23
Opening Cumulative Depreciation % of the GFA	%	36.25%	41.38%	46.51%
Rate of Depreciation Charged	%	5.13%	5.13%	5.13%
Closing GFA	₹ Cr	2034.56	2034.56	2034.56
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>104.37</b>	<b>104.37</b>	<b>104.37</b>
Closing Cumulative Depreciation	₹ Cr	841.86	946.23	1050.60
Closing Cumulative Depreciation % of the GFA	₹ Cr	41.38%	46.51%	51.64%

**SSTPP PH-I**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	6736.85	6736.85	6736.85
Opening Cumulative Depreciation	₹ Cr	536.77	847.34	1157.91
Opening Cumulative Depreciation % of the GFA	%	7.97%	12.58%	17.19%
Rate of Depreciation Charged	%	4.61%	4.61%	4.61%
Closing GFA	₹ Cr	6736.85	6736.85	6736.85
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>310.57</b>	<b>310.57</b>	<b>310.57</b>
Closing Cumulative Depreciation	₹ Cr	847.34	1157.91	1468.48
Closing Cumulative Depreciation % of the GFA	₹ Cr	12.58%	17.19%	21.80%



**Gandhi Sagar**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	10.39	10.39	10.39
Opening Cumulative Depreciation	₹ Cr	9.39	9.39	9.39
Opening Cumulative Depreciation % of the GFA	%	90.00%	90.00%	90.00%
Rate of Depreciation Charged	%	0.00%	0.00%	0.00%
Closing GFA	₹ Cr	10.39	10.39	10.39
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Closing Cumulative Depreciation	₹ Cr	9.39	9.39	9.39
Closing Cumulative Depreciation % of the GFA	₹ Cr	90.00%	90.00%	90.00%

**Pench**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	100.39	100.39	100.39
Opening Cumulative Depreciation	₹ Cr	79.72	81.68	83.63
Opening Cumulative Depreciation % of the GFA	%	79.41%	81.36%	83.31%
Rate of Depreciation Charged	%	1.95%	1.95%	1.95%
Closing GFA	₹ Cr	100.39	100.39	100.39
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>1.96</b>	<b>1.96</b>	<b>1.96</b>
Closing Cumulative Depreciation	₹ Cr	81.68	83.63	85.59
Closing Cumulative Depreciation % of the GFA	₹ Cr	81.36%	83.31%	85.26%

**Rajghat**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	82.81	82.81	82.81
Opening Cumulative Depreciation	₹ Cr	50.11	53.73	57.36
Opening Cumulative Depreciation % of the GFA	%	60.51%	64.89%	69.27%
Rate of Depreciation Charged	%	4.38%	4.38%	4.38%
Closing GFA	₹ Cr	82.81	82.81	82.81
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>3.63</b>	<b>3.63</b>	<b>3.63</b>
Closing Cumulative Depreciation	₹ Cr	53.73	57.36	60.99
Closing Cumulative Depreciation % of the GFA	₹ Cr	64.89%	69.27%	73.65%

**Bargi**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	86.97	86.97	86.97
Opening Cumulative Depreciation	₹ Cr	65.91	67.70	69.48
Opening Cumulative Depreciation % of the GFA	%	75.79%	77.84%	79.89%
Rate of Depreciation Charged	%	2.05%	2.05%	2.05%
Closing GFA	₹ Cr	86.97	86.97	86.97
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>1.78</b>	<b>1.78</b>	<b>1.78</b>
Closing Cumulative Depreciation	₹ Cr	67.70	69.48	71.26
Closing Cumulative Depreciation % of the GFA	₹ Cr	77.84%	79.89%	81.94%

**Bansagar PH-I, II&III**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	1167.35	1167.35	1167.35
Opening Cumulative Depreciation	₹ Cr	709.32	760.33	799.56
Opening Cumulative Depreciation % of the GFA	%	60.76%	65.13%	68.49%
Rate of Depreciation Charged	%	4.37%	3.36%	3.19%
Closing GFA	₹ Cr	1167.35	1167.35	1167.35
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>51.01</b>	<b>39.22</b>	<b>37.24</b>
Closing Cumulative Depreciation	₹ Cr	760.33	799.56	836.79
Closing Cumulative Depreciation % of the GFA	₹ Cr	65.13%	68.49%	71.68%

**Bansagar PH-IV**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	116.85	116.85	116.85
Opening Cumulative Depreciation	₹ Cr	62.57	68.70	74.82
Opening Cumulative Depreciation % of the GFA	%	53.55%	58.79%	64.03%
Rate of Depreciation Charged	%	5.24%	5.24%	5.24%
Closing GFA	₹ Cr	116.85	116.85	116.85
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>6.12</b>	<b>6.12</b>	<b>6.12</b>
Closing Cumulative Depreciation	₹ Cr	68.70	74.82	80.94
Closing Cumulative Depreciation % of the GFA	₹ Cr	58.79%	64.03%	69.27%

**Madhikheda**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	217.99	217.99	217.99
Opening Cumulative Depreciation	₹ Cr	89.03	100.38	111.74
Opening Cumulative Depreciation % of the GFA	%	40.84%	46.05%	51.26%
Rate of Depreciation Charged	%	5.21%	5.21%	5.21%
Closing GFA	₹ Cr	217.99	217.99	217.99
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>11.36</b>	<b>11.36</b>	<b>11.36</b>
Closing Cumulative Depreciation	₹ Cr	100.38	111.74	123.10
Closing Cumulative Depreciation % of the GFA	₹ Cr	46.05%	51.26%	56.47%

**Birsinghpur**

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19
Opening Gross Fixed Assets	₹ Cr	52.15	52.15	52.15
Opening Cumulative Depreciation	₹ Cr	36.86	37.78	38.70
Opening Cumulative Depreciation % of the GFA	%	70.68%	72.45%	74.22%
Rate of Depreciation Charged	%	1.77%	1.77%	1.77%
Closing GFA	₹ Cr	52.15	52.15	52.15
<b>Depreciation Amount</b>	<b>₹ Cr</b>	<b>0.92</b>	<b>0.92</b>	<b>0.92</b>
Closing Cumulative Depreciation	₹ Cr	37.78	38.70	39.63
Closing Cumulative Depreciation % of the GFA	₹ Cr	72.45%	74.22%	75.98%

98. Based on above the summary of Depreciation allowed for the control period FY 2016-17 to FY 2018-19 are as given below:-

**Table 29: Summary of Depreciation allowed during control period FY 2016-17 to FY 2018-19**  
(₹ in Crores)

S. No	Power Station	Depreciation		
		FY 2016-17	FY 2017-18	FY 2018-19
1	ATPS PH-III	50.16	50.16	50.16
2	STPS PH-II&III	0.00	0.00	0.00
3	STPS PH-IV	162.33	162.33	162.33
4	SGTPS PH-I&II	44.18	44.18	44.18
5	SGTPS PH-III	104.37	104.37	104.37
6	SSTPP PH-I	310.57	310.57	310.57
	<b>Total Thermal</b>	<b>671.61</b>	<b>671.61</b>	<b>671.61</b>

S.	Power Station	Depreciation		
7	Gandhi Sagar	0.00	0.00	0.00
8	Pench	1.96	1.96	1.96
9	Rajghat	3.63	3.63	3.63
10	Bargi	1.78	1.78	1.78
11	Bansagar PH-I,II&III	51.01	39.22	37.24
12	Bansagar PH-IV	6.12	6.12	6.12
13	Madhikheda	11.36	11.36	11.36
14	Birsinghpur	0.92	0.92	0.92
	<b>Total Hydro</b>	<b>76.78</b>	<b>64.99</b>	<b>63.01</b>
	<b>Total</b>	<b>748.39</b>	<b>736.60</b>	<b>734.62</b>

### Operation & Maintenance Expenses

#### Petitioner's submission:

99. The petitioner filed the O&M expenses for thermal and hydel power stations based on the norms prescribed in the Regulations as given below:

**Table 30: Operation & Maintenance Expenses Filed (₹ in Crores)**

S. No	Power Station	Capacity in MW	Operation & Maintenance Expenses		
			FY 2016-17	FY 2017-18	FY 2018-19
1	ATPS PH-III	210	50.82	54.01	57.41
2	STPS PH-II&III	830	200.86	213.48	226.92
3	STPS PH-IV	500	135.00	143.50	152.55
4	SGTPS PH-I&II	840	203.28	216.05	229.66
5	SGTPS PH-III	500	97.15	103.25	109.75
6	SSTPS PH-I	1200	195.24	207.60	220.56
	<b>Total Thermal</b>		<b>882.35</b>	<b>937.89</b>	<b>996.85</b>
7	Gandhi Sagar	115	11.09	11.82	12.60
8	Pench	160	15.42	16.45	17.54
9	Rajghat	45	4.34	4.63	4.93
10	Bargi	90	8.68	9.25	9.86
11	Bansagar PH-I,II&III	405	39.04	41.63	44.39
12	Bansagar PH-IV	20	1.93	2.06	2.19
13	Madhikheda	60	5.78	6.17	6.58
14	Birsinghpur	20	1.93	2.06	2.19
	<b>Total Hydro</b>		<b>88.21</b>	<b>94.06</b>	<b>100.28</b>
	<b>Total</b>		<b>970.56</b>	<b>1031.95</b>	<b>1097.14</b>

100. The petitioner has also requested that the impact of proposed 7<sup>th</sup> Pay Commission may also consider in the O&M norms after its implementation at a later date.
101. The petitioner in para 13.1 of the petition submitted the following: -
- “Expenses The proviso 35.4 of MPERC Generation Tariff Regulations, 2015 provides that the funding of Pension and Other Terminal Benefits in respect of personnel including existing pensioner’s of the Board and pensioner’s of M.P. Power Generating Co. Ltd. shall be allowed in accordance with the MPERC (Terms & Conditions for allowing pension and terminal liabilities of personal of the Board and successor entities) Regulations, 2012 (G-38 of 2012) notified in MP Gazette Notification dated 20.04.2012.*
102. *The Terminal Benefits of the employees are calculated as per the provisions of above said MPERC Regulation 2012 based on the Actuarial Valuation Report as on 31.3.2012 for M.P. Power Generating Co. Ltd.*

#### **Provisions in Regulation:**

103. Regulation 35 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 provides that,

*“The Operation and Maintenance expenses admissible to existing thermal power stations commissioned prior to 01.04.2012 comprise of employee cost, Repair & Maintenance (R&M) cost and Administrative and General (A&G) cost. These norms exclude Pension and Terminal Benefits, EL encashment, 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, EL encashment and any arrears paid to employees separately as actuals. The claim of pension and Terminal Benefits shall be dealt as per Regulation 35.4.*

**Table 31: O&M Norms for Thermal Generating Units (₹ in lakh/MW)**

Units (MW)	FY 2016-17	FY 2017-18	FY 2018-19
120	27.9	29.65	31.52
200/210/250	24.2	25.72	27.34
500	19.43	20.65	21.95

**Table 32: O&M Norms for Thermal Generating Units Commissioned on or after 01.04.2012 (₹ in lakh/MW)**

Units (MW)	FY 2016-17	FY 2017-18	FY 2018-19
45	32.07	34.09	36.24
200/210/250	27	28.7	30.51
300/330/350	22.54	23.96	25.47
500	18.08	19.22	20.43
600	16.27	17.3	18.38

**“Operation and Maintenance Expenses of Hydel Power Stations**

The Operation and Maintenance expenses admissible to existing hydro power stations comprise of Employee cost, Repair & Maintenance (R&M) cost and Administrative and General (A&G) cost. These norms exclude Pension and Terminal Benefits, EL encashment, 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, EL encashment and any arrears paid to employees separately as actuals. The claim of pension and Terminal Benefits shall be dealt as per Regulation 35.4.

Following operation and maintenance expenses norms shall be applicable for the existing hydro generating stations which have been operational prior to 01.04.2016

**Table 33: O&M Norms for Hydel Power Stations**

Year	O&M Expenses
FY 2016-17	9.64
FY 2017-18	10.28
FY 2018-19	10.96

In case of the new hydro generating stations declared under commercial operation on or after 1.4.2016, operation and maintenance expenses shall be fixed at 4% and 2.50% of the original project cost (excluding cost of rehabilitation & resettlement works) for first year of commercial operation for stations less than 200 MW projects and for stations more than 200 MW respectively and shall be subject to annual escalation of 6.64% per annum for the subsequent years.

**Commission’s Analysis:-**

104. Based on the above Regulations, the operations and maintenance expenses allowed during control period FY 2016-17 to FY 2018-19 have been worked out as given below:-

**Table 34: Operation & Maintenance Expenses Allowed (₹in Crores)**

S.NO	POWER STATION	MW	FY 2016-17	FY 2017-18	FY 2018-19
1	ATPS PH-III	210	50.82	54.01	57.41
2	STPS PH-II & III	830	200.86	213.48	226.92
3	STPS PH-IV	500	135.00	143.50	152.55
4	SGTPS PH-I & II	840	203.28	216.05	229.66
5	SGTPS PH-III	500	97.15	103.25	109.75
6	SSTPS PH-I	1200	195.24	207.60	220.56
7	GANDHI SAGAR	115	11.09	11.82	12.60
8	PENCH	160	15.42	16.45	17.54
9	RAJGHAT	45	4.34	4.63	4.93
10	BARGI	90	8.68	9.25	9.86
11	BANSAGAR PH-I, II&III	405	39.04	41.63	44.39
12	BANSAGAR PH-IV JHINNA	20	1.93	2.06	2.19
13	MADHIKHEDA	60	5.78	6.17	6.58
14	BIRSINGPUR	20	1.93	2.06	2.19
<b>Total</b>			<b>970.56</b>	<b>1031.95</b>	<b>1097.14</b>

105. With regard to impact of 7<sup>th</sup> pay Commission, the same shall be dealt with in accordance with the Regulation 35.5 of MPERC Regulations 2015, at an appropriate stage of implementation of 7<sup>th</sup> pay commission after prudence check on the details and documents filed by MPPGCL on satisfaction of the Commission.

#### **Pension and Terminal Benefits Expenses:**

106. As per provisions under MPERC (Terms & Conditions for allowing Pension and Terminal Benefit Liabilities of Personnel of the Board and Successor Entities) Regulation, 2012, the following is observed:

- a) The Actuarial Analysis for the contribution of terminal benefits as per Regulations 3(2) (ii) and (iii) **is to be undertaken by MPPTCL** from time to time as per the directions of the Commission.
- b) **MPPTCL shall be the nodal agency for all intent and purpose** to implement the Pension and Terminal Benefits Trust Funds under the Regulations.
- c) MPPTCL is required to coordinate with the representatives of other Successor Entities as well as the Personnel for all matters relating to management and administration of the funds for the pension and terminal benefits funds.
- d) The liabilities referred to in Regulation 3(2) (i) related to Personnel who retired after 1<sup>st</sup> June, 2005 shall be allowed as a pass through in the ARR of such Successor Entities in the relevant year for the period of service

- rendered after 1<sup>st</sup> June, 2005.
- e) Apportionment of liabilities amongst MPPTCL and other Successor Entities **shall be as determined through actuarial analysis undertaken by MPPTCL.**(Emphasis supplied)
107. In para 46 of Commission's order dated 10th June' 2016 Petition No. 2 of 2016 for determination of Multi Year Transmission tariff for the same control period of FY 2016-17 to FY 2018-19, the Commission had observed the following:

*“the above issue needs to be dealt with in accordance to the various provisions under MPERC (Terms & Conditions for allowing Pension and Terminal Benefit Liabilities of Personnel of the Board and Successor Entities) Regulation, 2012. In so far as the provision for contribution for pension and terminal benefit liabilities of personnel of the Board and the successor entities is concerned, this provision can only be made after proper and updated actuarial analysis by MPPTCL. This, however, shall be a separate exercise to be undertaken by Transco on directions of the Commission. Results of this exercise shall get reflected in transmission tariff orders at the discretion of the Commission as per the Regulation referred to above.”*

108. Accordingly, the Commission allowed the current terminal benefit and pension expenses for employees of all successor entities of erstwhile MPSEB including MPPGCL in its aforementioned order dated 10<sup>th</sup> June' 2016 on provisional basis and 'pay as you go' principle as claimed by MPPTCL subject to true-up in each year on availability of the actual figures.

### **Special Allowance**

#### **Petitioner's Submission**

109. The petitioner broadly submitted the following:

*“The proviso 22.1 of “MPERC (Terms and Conditions of Generation Tariff) Regulations, 2015 {RG-26 (III) of 2015}” provides that the Generating Company, in case of thermal generating stations, may in its discretion can avail a Special Allowance either for a unit or a group of units as compensation for meeting the requirement of expenses including R&M works beyond the useful life of the generating stations. In such case the revision of capital cost shall not be considered and the option once opted shall be final.*

*The Commission vide order dated 23.07.2015 in petition 23 of 2015 has permitted Special Allowance for Units of PH-2 & 3 STPS, Sarni till FY 2015-16. Accordingly as per proviso 22.2 the rates of Special Allowance has been worked*



out by escalating the rates allowed for FY 2015-16 further @ 6.35% every year for the control period FY 2016-17 to FY 2018-19. The same is detailed below:

**Table 35: ₹ Lakhs/MW/year**

FY 2016-17	FY 2017-18	FY 2018-19
9.29	9.89	10.51

Accordingly, the amount of Special Allowance works out as under:-

**Table 36: ₹ in Crore**

Power House	Capacity (MW)	FY 2016-17	FY 2017-18	FY 2018-19
STPS PH 2&3	830	77.11	82.01	87.22

### Provisions in Regulation:

110. Regulation 22.2 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 provides that:

*“The Special Allowance shall be @ Rs. 7.5 lakh/MW/year for the year 2016-17 and thereafter escalated @ 6.35% every year during the balance period, unit-wise from the next financial year from the respective date of the completion of useful life with reference to the date of commercial operation of the respective unit of generating station::*

*Provided that in respect of a unit, which will opt for Special Allowance during the tariff period 2016-17 to 2018-19 and in commercial operation for more than 25 years as on 1.4.2016, this allowance shall be admissible from FY 2016-17:*

*Provided further that the special allowance for the generating stations, which, in its discretion, has already availed of a “special allowance” in accordance with the norms specified in clause (18.5) of Madhya Electricity Regulatory Commission (Terms and Conditions for Determination Generation Tariff) Regulations, 2012, shall be allowed Special Allowance by escalating the special allowance allowed for the year 2015-16 @ 6.35% every year during the tariff period 2016-17 to 2018-19.*

### Commission’s Analysis:-

111. The aforesaid Regulations provided that the generating company, in case of thermal generating stations may at its discretion avail a special allowance either

for a unit or a group of units as compensation for meeting the requirement of expenses including R&M works beyond the useful life of the generating stations. In such case, the revision of capital cost shall not be considered and the option once exercise shall be final.

112. With regard to STPS PH II & III, the petitioner has already opted the special allowance in accordance with the provisions under the applicable MPERC Tariff Regulation.
113. For the purpose of computation of special allowance during the control period FY 2016-17 to FY 2018-19, the Commission has considered the special allowance determined in its order dated 23<sup>rd</sup> July' 2015 in petition no. 23/2015, for FY 2015-16, which has been escalated by 6.35% every year during the control period FY 2016-17 to FY 2018-19.
114. Accordingly, the special allowance for STPS PH II & III is worked out in this order as given below:

**Table 37: Special Allowance allowed in order** (₹ in Crores)

Power Station	Capacity (MW)	FY 2016-17	FY 2017-18	FY 2018-19
STPS PH II & III	830	77.15	82.05	87.26

### Compensation Allowance

#### **Petitioner's Submission**

115. The petitioner broadly submitted the following:

*"The Commission, in "MPERC (Terms and Conditions of Generation Tariff) Regulations, 2015 {RG-26 (III) of 2015}" clause 23.2 has permitted*

*"Compensation Allowances" to the Thermal Generating stations depending upon their age to meet the requirement of expenses of capital nature. The age wise compensation allowance allowed by the Commission is as under:-*

YEARS OF OPERATION	COMPENSATION ALLOWANCE (RS.LAKH/MW/YEAR)
0-10	NIL
11-15	0.20
16-20	0.50
21-25	1.00

The Unit No. 1 & 2 of PH-1 SGTPS Birsinghpur are older than 21 years, therefore the Compensation Allowance @ Rs. 1.00 Lakh/MW/year shall applicable during the control period. Further, the Unit No. 3 & 4 of PH-2 SGTPS Birsinghpur are older than 16 years, therefore the Compensation Allowance @ Rs. 0.50 Lakh/MW/year shall applicable during the control period. The amount of Compensation Allowance worked out for FY 17 to FY 19 for SGTPS Birsinghpur is tabulated below:-

POWER HOUSE	CAPACITY	FY 2016-17	FY 2017-18	FY 2018-19
SGTPS PH-1	420	4.20	4.20	4.20
SGTPS PH-2	420	2.10	2.10	2.10
<b>TOTAL</b>		<b>6.30</b>	<b>6.30</b>	<b>6.30</b>

### Provisions in Regulation:

116. Regulation 23 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 provides that,

*“23.1 In case of coal-based thermal generating station or a unit thereof, a separate compensation allowance Unit-wise shall be admissible to meet expenses on new assets of capital nature which are not admissible under Regulations 20 of these Regulations, and in such event, revision of the capital cost shall not be allowed on account of compensation allowance but the compensation allowance shall be allowed to be recovered separately.*

*23.2 The Compensation Allowance shall be allowed in the following manner from the Year following the Year of completion of 10, 15, or 20 Years of Useful life:”*

YEARS OF OPERATION	COMPENSATION ALLOWANCE (RS.LAKH/MW/YEAR)
0-10	NIL
11-15	0.20
16-20	0.50
21-25	1.00

### Commission’s analysis:

117. The Commission in its Regulations 2015 has permitted “compensation allowance” to the thermal power stations depending upon their age to meet the expenses on new assets of capital nature, which are not covered under additional capitalization.

118. The petitioner filed the compensation allowance for SGTPS PH I & II based on the life of the thermal generating units.
119. Accordingly, compensation allowance based on the age of the thermal generating units and norms prescribed in the Regulation is allowed in this order as given below:-

**Table 38: Compensation Allowance allowed (₹ in Crores)**

POWER HOUSE	CAPACITY	FY 2016-17	FY 2017-18	FY 2018-19
SGTPS PH-I	420	4.20	4.20	4.20
SGTPS PH-II	420	2.10	2.10	2.10
<b>TOTAL</b>		<b>6.30</b>	<b>6.30</b>	<b>6.30</b>

**Interest on Working Capital****Petitioner's submission:**

120. The petitioner broadly submitted the following:

*Based on norms, the Power station wise Working capital and Interest on Working Capital for FY 2016-17 to 2018-19 are works out as under:*

**Table 39: Working Capital and Interest on Working Capital filed (₹ in Crores)**

S. No	Power Station	Working Capital			Interest on Working Capital		
		FY 2016-17	FY 2017-18	FY 2018-19	FY 2016-17	FY 2017-18	FY 2018-19
1	ATPS PH-III	131.39	132.17	132.73	17.74	17.84	17.92
2	STPS PH-II&III	507.82	513.63	519.82	68.56	69.34	70.18
3	STPS PH-IV	400.85	406.15	406.20	54.12	54.83	54.84
4	SGTPS PH-I&II	626.43	633.66	640.41	84.57	85.55	86.45
5	SGTPS PH-III	385.33	385.82	386.45	52.02	52.09	52.17
6	SSTPS PH-I	1075.95	1077.78	1075.15	145.25	145.50	145.15
	<b>Total Thermal</b>	<b>3127.78</b>	<b>3149.22</b>	<b>3160.75</b>	<b>422.25</b>	<b>425.14</b>	<b>426.70</b>
7	Gandhi Sagar	4.79	5.41	5.84	0.65	0.73	0.79
8	Pench	7.37	7.80	8.25	1.00	1.05	1.11
9	Rajghat	3.05	3.18	2.97	0.41	0.43	0.40
10	Bargi	5.01	6.92	8.29	0.68	0.93	1.12
11	Bansagar PH-I, II&III	33.97	33.04	33.83	4.59	4.46	4.57
12	Bansagar PH-IV	3.11	3.03	2.96	0.42	0.41	0.40
13	Madhikheda	6.63	6.58	6.53	0.90	0.89	0.88

S. No	Power Station	Working Capital			Interest on Working Capital		
		FY 2016-17	FY 2017-18	FY 2018-19	FY 2016-17	FY 2017-18	FY 2018-19
14	Birsinghpur	1.42	1.48	1.48	0.19	0.20	0.20
	<b>Total Hydro</b>	<b>65.37</b>	<b>67.43</b>	<b>70.14</b>	<b>8.82</b>	<b>9.10</b>	<b>9.47</b>
	<b>Total</b>	<b>3193.15</b>	<b>3216.65</b>	<b>3230.89</b>	<b>431.08</b>	<b>434.25</b>	<b>436.17</b>

### Provisions in Regulation:

121. Regulation 34 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 provides that,

34.1 "The Working Capital shall cover:

(1) Coal- based thermal generating stations

(a) Cost of coal towards stock, if applicable, for 15 Days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal stock storage capacity whichever is lower;

(b) Cost of coal for 30 days for generation corresponding to the normative annual plant availability factor;

(c) Cost of secondary fuel oil for two months for generation corresponding to the normative availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil.

(d) Maintenance spares @ 20% of the Operation & maintenance expenses specified in Regulation 35 ;

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

(f) Operation and Maintenance expenses for one month.

(B) Hydro generating station, the working capital shall include:

(a) Receivables equivalent to two months of fixed cost

(b) Maintenance spares @15% of operation & maintenance expenses specified in Regulation 35; and

(c) operation & maintenance expenses for one month

34.2 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 three months preceding the first month for which tariff is to be determined and no fuel price escalation shall be provided during the Tariff period.”

34.3 “Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.04.2016 or on 1<sup>st</sup> April of the year during the tariff period 2016-17 to 2018-19 in which the generating station or a unit thereof, is declared under commercial operation, whichever is later.

34.4 Interest on working capital shall be payable on normative basis notwithstanding that the Generating Company has not taken loan for working capital from any outside agency.

### Commission’s analysis:

122. The working capital for thermal and hydel power stations is worked out based on the aforesaid norms for working capital as given below :

#### (a) Cost of coal towards stock and cost of coal towards generation

123. Vide Commission’s letter dated 05<sup>th</sup> May ‘2016 the petitioner was asked to explain the basis of the cost of coal for two months considered in the petition in light of the power station-wise maximum coal stock storage.

124. By Affidavit dated 26<sup>th</sup> May’ 2016, the petitioner submitted the following:

“MPPGCL wish to submit that the proviso 34.1 (a) clearly provides for considering 30 days (01 month) of cost of coal towards **stock** for Non-Pit Head stations corresponding to NAPAF.

Similarly, proviso 34.1 (b) clearly provides for considering 30 days (01 month) of cost of coal towards **generation** corresponding to NAPAF.

Therefore, total cost of coal considered by MPPGCL for calculating out Working Capital corresponds to 30+30=60 days (2 months).

The capacity of Coal yards at thermal Power Stations of MPPGCL is designed to store/stock coal corresponding to more than one month.”

125. It is observed from the above reply, that the petitioner has coal storage capacity of its coal yard for more than one month. Accordingly, as per above regulations, the Commission has considered cost of coal towards stock for 30 days for non-pit head generating stations for generation and cost of coal for 30 days for

generation corresponding to the normative annual plant availability factor.

126. Vide letter dated 18<sup>th</sup> June' 2016, the petitioner filed weighted average landed price of coal for January 2016 to March 2016 along with weighted average GCV of coal on received basis. Thus the total cost of coal for 60 days has been considered to work out by considering weighted average landed price of coal and GCV on received basis for the working capital which are as given below:

**Table 40: Cost of Coal for Working Capital**

Power Station/Particulars	UNITS	ATPS PH-III	STPS PH-II & III	STPS PH-IV	SGTPS PH-I&II	SGTPS PH-III	SSTPS PH-I
Installed Capacity	MW	210	830	500	840	500	1200
NAPAF	%	85%	75%	85%	80%	85%	85%
GSHR	KCal/kWh	2450	2700	2400	2600	2425	2384.25
Gross Generation	MUs	1564	5453	3723	5887	3723	8935
GCV of Coal	KCal/Kg	4134	3618	3618	3747	3747	4039
Sp. Coal Consumption	kg/kWh	0.590	0.741	0.662	0.691	0.645	0.589
Annual Coal Consumption	MT	922915	4043101	2464507	4066660	2399532	5263450
60 days Coal Stock	MT	153819	673850	410751	677777	399922	877242
Weighted Average Rate of Coal	Rs./MT	2688	2809	2809	2830	2830	3669
<b>Coal Cost (60 Days stock)</b>	<b>Rs in Cr.</b>	<b>41.35</b>	<b>189.28</b>	<b>115.38</b>	<b>191.81</b>	<b>113.18</b>	<b>321.86</b>

**(b) Secondary Fuel Oil Cost**

The petitioner filed the cost of secondary fuel oil based on the fuel oil procured during financial year FY 2015-16. In Para 7.5 to 7.9 of the petition, the petitioner submitted the power station-wise details of different fuel oil procured and worked out the weighted average rate of secondary fuel oil.

Regulation 34.1 (b) of the Regulations, 2015 provides that, in case of use of more than one secondary fuel oil, cost of fuel oil shall be provided for the main secondary fuel oil. Accordingly, the fuel oil component in working capital is worked out as given below:

**Table 41: Cost of Secondary fuel oil for working capital**

Power Station/Particulars	UNITS	ATPS PH-III	STPS PH-II & III	STPS PH-IV	SGTPS PH-I&II	SGTPS PH-III	SSTPS PH-I
Installed Capacity	MW	210	830	500	840	500	1200
Gross Generation	MUs	1564	5453	3723	5887	3723	8935

GCV of Oil considered	Kcal/Ltr	10000	10000	10000	10000	10000	10000
Sp. Oil Consumption	kg/kWh	1.00	1.75	0.50	1.15	1.00	0.50
Annual Oil Consumption	KL	15637	95429	18615	67697	37230	44676
Two Month Oil Stock	KL	2606	15905	3103	11283	6205	7446
Rate of Oil	Rs./KL	53080	34109	34109	35758	35758	24885
<b>Oil Cost (Two Month stock)</b>	<b>Rs in Cr.</b>	<b>1.38</b>	<b>5.42</b>	<b>1.06</b>	<b>4.03</b>	<b>2.22</b>	<b>1.85</b>

### (c) Maintenance Spares

Maintenance spares for the purpose of working capital for thermal and hydel power stations is worked out as 20% and 15% of the normative annual O&M expenses respectively as per the provision under Regulations.

### (d) Receivables

Receivables for thermal power stations is worked out equivalent to two months of capacity charges and energy charges for sale of electricity and calculated on the normative annual plant availability factor. The receivables for hydel power stations shall be equivalent to two months of Annual capacity (fixed) charges.

**Table 42: 2 Month receivables for working Capital**

**(₹ in Cores)**

S. No	Power Station	FY 2016-17		FY 2017-18		FY 2018-19	
		2 Month Fixed Charges	2 Month Energy Charges	2 Month Fixed Charges	2 Month Energy Charges	2 Month Fixed Charges	2 Month Energy Charges
1	ATPS PH-III	36.22	42.84	35.70	42.84	35.22	42.84
2	STPS PH-II&III	48.81	194.88	51.04	194.88	53.41	194.88
3	STPS PH-IV	119.64	116.47	117.56	116.47	115.57	116.47
4	SGTPS PH-I&II	69.10	196.75	71.35	196.75	73.75	196.75
5	SGTPS PH-III	69.55	115.89	68.37	115.89	67.26	115.89
6	SSTPP PH-I	226.12	324.27	221.45	324.27	216.89	324.27
	<b>Total Thermal</b>	<b>569.45</b>	<b>991.11</b>	<b>565.48</b>	<b>991.11</b>	<b>562.11</b>	<b>991.11</b>
7	Gandhi Sagar	2.03		2.16		2.29	
8	Pench	3.83		4.01		4.20	
9	Rajghat	2.03		2.08		2.14	



10	Bargi	2.51		2.62		2.72	
11	Bansagar PH-I, II&III	24.78		23.23		23.37	
12	Bansagar PH-IV	2.65		2.54		2.44	
13	Madhikheda	5.27		5.10		4.93	
14	Birsinghpur	0.91		0.93		0.95	
	<b>Total Hydro</b>	<b>44.02</b>	<b>0.00</b>	<b>42.66</b>	<b>0.00</b>	<b>43.05</b>	<b>0.00</b>
	<b>Total</b>	<b>613.47</b>	<b>991.11</b>	<b>608.14</b>	<b>991.11</b>	<b>605.16</b>	<b>991.11</b>

**(e) O&M Expenses**

Operation and Maintenance expenses of one month as approved in this order have been considered for working capital of thermal and hydel power stations.

127. The interest on working capital equal to Base Rate of SBI as on 1<sup>st</sup> April' 2016 (9.30% + 3.50%) i.e. 12.80% is considered in this order. Accordingly, the power station-wise interest on working capital for the control period FY 2016-17 to FY 2018-19 is worked out as given below:

**Table 43: Interest on working capital allowed** (₹in Crores)  
**ATPS PH-III**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Cost of Coal	41.35	41.35	41.35
Cost of Secondary Fuel Oil	1.38	1.38	1.38
Operation & Maintenance	4.24	4.50	4.78
Maintenance Spares	10.16	10.80	11.48
Receivables	79.06	78.54	78.06
<b>Working Capital</b>	<b>136.19</b>	<b>136.58</b>	<b>137.06</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>17.43</b>	<b>17.48</b>	<b>17.54</b>

**STPS PH-II&III**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Cost of Coal	189.28	189.28	189.28
Cost of Secondary Fuel Oil	5.42	5.42	5.42
Operation & Maintenance	16.74	17.79	18.91
Maintenance Spares	40.17	42.70	45.38
Receivables	243.70	245.92	248.29
<b>Working Capital</b>	<b>495.31</b>	<b>501.12</b>	<b>507.30</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>63.40</b>	<b>64.14</b>	<b>64.93</b>

**STPS PH-IV**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Cost of Coal	115.38	115.38	115.38
Cost of Secondary Fuel Oil	1.06	1.06	1.06
Operation & Maintenance	11.25	11.96	12.71
Maintenance Spares	27.00	28.70	30.51
Receivables	236.11	234.03	232.05
<b>Working Capital</b>	<b>390.80</b>	<b>391.13</b>	<b>391.71</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>50.02</b>	<b>50.06</b>	<b>50.14</b>

**SGTPS PH-I&II**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Cost of Coal	191.81	191.81	191.81
Cost of Secondary Fuel Oil	4.03	4.03	4.03
Operation & Maintenance	16.94	18.00	19.14
Maintenance Spares	40.66	43.21	45.93
Receivables	265.85	268.10	270.51
<b>Working Capital</b>	<b>519.29</b>	<b>525.16</b>	<b>531.42</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>66.47</b>	<b>67.22</b>	<b>68.02</b>

**SGTPS PH-III**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Cost of Coal	113.18	113.18	113.18
Cost of Secondary Fuel Oil	2.22	2.22	2.22
Operation & Maintenance	8.10	8.60	9.15
Maintenance Spares	19.43	20.65	21.95
Receivables	185.45	184.26	183.15
<b>Working Capital</b>	<b>328.37</b>	<b>328.92</b>	<b>329.65</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>42.03</b>	<b>42.10</b>	<b>42.19</b>

**SSTPP PH-I**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Cost of Coal	321.86	321.86	321.86
Cost of Secondary Fuel Oil	1.85	1.85	1.85
Operation & Maintenance	16.27	17.30	18.38
Maintenance Spares	39.05	41.52	44.11
Receivables	550.39	545.72	541.16
<b>Working Capital</b>	<b>929.42</b>	<b>928.25</b>	<b>927.36</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>118.97</b>	<b>118.82</b>	<b>118.70</b>

**Gandhi Sagar**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Receivables	2.03	2.16	2.29
Operation & Maintenance	0.92	0.99	1.05
Maintenance Spares	1.66	1.77	1.89
<b>Working Capital</b>	<b>4.61</b>	<b>4.92</b>	<b>5.23</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>0.59</b>	<b>0.63</b>	<b>0.67</b>

**Pench**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Receivables	3.83	4.01	4.20
Operation & Maintenance	1.29	1.37	1.46
Maintenance Spares	2.31	2.47	2.63
<b>Working Capital</b>	<b>7.43</b>	<b>7.85</b>	<b>8.30</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>0.95</b>	<b>1.00</b>	<b>1.06</b>

**Rajghat**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Receivables	2.03	2.08	2.14
Operation & Maintenance	0.36	0.39	0.41
Maintenance Spares	0.65	0.69	0.74
<b>Working Capital</b>	<b>3.05</b>	<b>3.16</b>	<b>3.29</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>0.39</b>	<b>0.41</b>	<b>0.42</b>

**Bargi**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Receivables	2.51	2.62	2.72
Operation & Maintenance	0.72	0.77	0.82
Maintenance Spares	1.30	1.39	1.48
<b>Working Capital</b>	<b>4.54</b>	<b>4.77</b>	<b>5.02</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>0.58</b>	<b>0.61</b>	<b>0.64</b>

**Bansagar PH-I, II&III**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Receivables	24.78	23.23	23.37
Operation & Maintenance	3.25	3.47	3.70

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Maintenance Spares	5.86	6.25	6.66
<b>Working Capital</b>	<b>33.89</b>	<b>32.94</b>	<b>33.73</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>4.34</b>	<b>4.22</b>	<b>4.32</b>

**Bansagar PH-IV (Jhinna)**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Receivables	2.65	2.54	2.44
Operation & Maintenance	0.16	0.17	0.18
Maintenance Spares	0.29	0.31	0.33
<b>Working Capital</b>	<b>3.10</b>	<b>3.02</b>	<b>2.95</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>0.40</b>	<b>0.39</b>	<b>0.38</b>

**Madhikheda**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Receivables	5.27	5.10	4.93
Operation & Maintenance	0.48	0.51	0.55
Maintenance Spares	0.87	0.93	0.99
<b>Working Capital</b>	<b>6.62</b>	<b>6.54</b>	<b>6.46</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>0.85</b>	<b>0.84</b>	<b>0.83</b>

**Birsinghpur**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Receivables	0.91	0.93	0.95
Operation & Maintenance	0.16	0.17	0.18
Maintenance Spares	0.29	0.31	0.33
<b>Working Capital</b>	<b>1.36</b>	<b>1.41</b>	<b>1.47</b>
Bank Rate	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>0.17</b>	<b>0.18</b>	<b>0.19</b>

**Normative Annual Plant Availability Factor**

128. Normative Annual Plant Availability Factor (NAPAF) for thermal and hydel power stations as per the Regulations, 2015 shall be considered for recovery of full capacity (fixed) charges. The details of power station-wise NAPAF as per Regulations, 2015 for the control period FY 2016-17 to FY 2018-19 are as given below :

**Table 44: Normative Annual Plant Availability Factor (%)**

S. No	Power Station	NAPAF for FY 2016-17 to 2018-19
<b>Thermal Power Stations</b>		
1	ATPS PH-III	85
2	STPS PH-II&III	75
3	STPS PH-IV	85
4	SGTPS PH-I&II	80
5	SGTPS PH-III	85
6	SSTPS PH-I	85
<b>Hydel Power Stations</b>		
7	Gandhi Sagar	85
8	Pench	85
9	Rajghat	85
10	Bargi	85
11	Bansagar Complex (excluding silpara)	85
12	Silpara	90
13	Madhikheda	85
14	Birsinghpur	85

**Summary of Annual Capacity (Fixed) Charges**

129. The power station-wise Annual Capacity (Fixed) Charges for each year of the control period allowed in this order are summarized in the table given below :

**Table 45: Power Station Wise Summary of Annual Capacity (fixed) Charges allowed** (₹ in Crores)

**ATPS PH-III**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	38.25	38.25	38.25
Interest on Loan	60.66	54.30	47.95
Depreciation	50.16	50.16	50.16
Interest on Working Capital	17.43	17.48	17.54
Operation & Maintenance Expenses	50.82	54.01	57.41
Special Allowance	0.00	0.00	0.00
Compensation Allowance	0.00	0.00	0.00
<b>Total AFC</b>	<b>217.33</b>	<b>214.21</b>	<b>211.32</b>

**STPS PH-II&III**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	28.61	28.61	28.61
Interest on Loan	0.00	0.00	0.00
Depreciation	0.00	0.00	0.00
Interest on Working Capital	63.40	64.14	64.93
Operation & Maintenance Expenses	200.86	213.48	226.92
Special Allowance	77.15	82.05	87.26
Compensation Allowance	0.00	0.00	0.00
<b>Total AFC</b>	<b>370.02</b>	<b>388.28</b>	<b>407.73</b>

**STPS PH-IV**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	94.79	94.79	94.79
Interest on Loan	275.72	254.68	233.64
Depreciation	162.33	162.33	162.33
Interest on Working Capital	50.02	50.06	50.14
Operation & Maintenance Expenses	135.00	143.50	152.55
Special Allowance	0.00	0.00	0.00
Compensation Allowance	0.00	0.00	0.00
<b>Total AFC</b>	<b>717.85</b>	<b>705.36</b>	<b>693.44</b>

**SGTPS PH-I&II**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	100.66	100.66	100.66
Interest on Loan	0.00	0.00	0.00
Depreciation	44.18	44.18	44.18
Interest on Working Capital	66.47	67.22	68.02
Operation & Maintenance Expenses	203.28	216.05	229.66
Special Allowance	0.00	0.00	0.00
Compensation Allowance	6.30	6.30	6.30
<b>Total AFC</b>	<b>420.90</b>	<b>434.42</b>	<b>448.83</b>

**SGTPS PH-III**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	89.10	89.10	89.10
Interest on Loan	84.65	71.40	58.15
Depreciation	104.37	104.37	104.37
Interest on Working Capital	42.03	42.10	42.19
Operation & Maintenance Expenses	97.15	103.25	109.75
Special Allowance	0.00	0.00	0.00
Compensation Allowance	0.00	0.00	0.00
<b>Total AFC</b>	<b>417.31</b>	<b>410.22</b>	<b>403.56</b>

**SSTPP PH-I**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	196.70	196.70	196.70
Interest on Loan	535.27	495.04	454.82
Depreciation	310.57	310.57	310.57
Interest on Working Capital	118.97	118.82	118.70
Operation & Maintenance Expenses	195.24	207.60	220.56
Special Allowance	0.00	0.00	0.00
Compensation Allowance	0.00	0.00	0.00
<b>Total AFC</b>	<b>1356.74</b>	<b>1328.73</b>	<b>1301.35</b>

**Gandhi Sagar**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	0.49	0.49	0.49
Interest on Loan	0.00	0.00	0.00
Depreciation	0.00	0.00	0.00
Interest on Working Capital	0.59	0.63	0.67
Operation & Maintenance Expenses	11.09	11.82	12.60
<b>Total AFC</b>	<b>12.16</b>	<b>12.94</b>	<b>13.76</b>

**Pench**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	4.67	4.67	4.67
Interest on Loan	0.00	0.00	0.00
Depreciation	1.96	1.96	1.96
Interest on Working Capital	0.95	1.00	1.06
Operation & Maintenance Expenses	15.42	16.45	17.54
<b>Total AFC</b>	<b>23.00</b>	<b>24.08</b>	<b>25.22</b>

**Rajghat**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	3.85	3.85	3.85
Interest on Loan	0.00	0.00	0.00
Depreciation	3.63	3.63	3.63
Interest on Working Capital	0.39	0.41	0.42
Operation & Maintenance Expenses	4.34	4.63	4.93
<b>Total AFC</b>	<b>12.21</b>	<b>12.51</b>	<b>12.83</b>

**Bargi**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	4.05	4.05	4.05
Interest on Loan	0.00	0.00	0.00
Depreciation	1.78	1.78	1.78
Interest on Working Capital	0.58	0.61	0.64
Operation & Maintenance Expenses	8.68	9.25	9.86
<b>Total AFC</b>	<b>15.09</b>	<b>15.69</b>	<b>16.34</b>

**Bansagar PH-I, II&III**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	54.28	54.28	54.28
Interest on Loan	0.00	0.00	0.00
Depreciation	51.01	39.22	37.24
Interest on Working Capital	4.34	4.22	4.32
Operation & Maintenance Expenses	39.04	41.63	44.39
<b>Total AFC</b>	<b>148.68</b>	<b>139.36</b>	<b>140.23</b>

**Bansagar PH-IV (Jhinna)**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	5.43	5.43	5.43
Interest on Loan	2.00	1.24	0.49
Depreciation	6.12	6.12	6.12
Interest on Working Capital	0.40	0.39	0.38
Operation & Maintenance Expenses	1.93	2.06	2.19
<b>Total AFC</b>	<b>15.88</b>	<b>15.24</b>	<b>14.61</b>



**Madhikheda**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	7.17	7.17	7.17
Interest on Loan	6.48	5.05	3.63
Depreciation	11.36	11.36	11.36
Interest on Working Capital	0.85	0.84	0.83
Operation & Maintenance Expenses	5.78	6.17	6.58
<b>Total AFC</b>	<b>31.63</b>	<b>30.58</b>	<b>29.55</b>

**Birsinghpur**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	2.43	2.43	2.43
Interest on Loan	0.00	0.00	0.00
Depreciation	0.92	0.92	0.92
Interest on Working Capital	0.17	0.18	0.19
Operation & Maintenance Expenses	1.93	2.06	2.19
<b>Total AFC</b>	<b>5.45</b>	<b>5.58</b>	<b>5.73</b>

**Table 46: Head Wise Total Annual Capacity (fixed) Charges**

S. No.	Particulars	AFC Allowed (₹ in Cr.)		
		FY 2016-17	FY 2017-18	FY 2018-19
1	Return on Equity	630.49	630.49	630.49
2	Interest on Loan	964.77	881.71	798.66
3	Depreciation	748.39	736.60	734.62
4	O&M Expenses	970.56	1031.95	1097.14
5	Compensation Allowance	6.30	6.30	6.30
6	Special Allowance	77.15	82.05	87.26
7	Interest on Working Capital	366.59	368.10	370.04
<b>Total Capacity (fixed) Charges</b>		<b>3764.24</b>	<b>3737.20</b>	<b>3724.50</b>

**Table 47: Power Station wise Annual Capacity (fixed) Charges**

S. No	Power Stations	AFC Allowed (in ₹ Cr.)		
		FY 2016-17	FY 2017-18	FY 2018-19
1	ATPS PH-III	217.33	214.21	211.32
2	STPS PH-II & III	370.02	388.28	407.73
3	STPS PH-IV	717.85	705.36	693.44
4	SGTPS PH-I&II	420.90	434.42	448.83
5	SGTPS PH-III	417.31	410.22	403.56
6	SSTPP PH-I	1356.74	1328.73	1301.35
<b>TOTAL THERMAL</b>		<b>3500.15</b>	<b>3481.21</b>	<b>3466.23</b>

S. No	Power Stations	AFC Allowed (in ₹ Cr.)		
		FY 2016-17	FY 2017-18	FY 2018-19
7	GANDHI SAGAR	12.16	12.94	13.76
8	PENCH	23.00	24.08	25.22
9	RAJGHAT	12.21	12.51	12.83
10	BARGI	15.09	15.69	16.34
11	BANSAGAR PH-I,II&III	148.68	139.36	140.23
12	BANSAGAR PH-IV (Jhinna)	15.88	15.24	14.61
13	MADHIKHEDA	31.63	30.58	29.55
14	BIRSINGHPUR	5.45	5.58	5.73
	<b>TOTAL HYDRO</b>	<b>264.10</b>	<b>255.98</b>	<b>258.27</b>
	<b>TOTAL</b>	<b>3764.24</b>	<b>3737.20</b>	<b>3724.50</b>

130. The aforesaid power station-wise Annual Capacity Charges have been computed based on norms specified under the Regulations, 2015. The total capacity charges payable for a generating station shall be shared by its beneficiaries as per their respective percentage share/allocation in the capacity of the generating station.
131. The recovery of annual capacity (fixed) charges shall be made by the petitioner in accordance with Regulations 36.2 to 36.4 in case of thermal power stations and Regulation 37.2 to 37.3 in case of hydro generating stations of the Regulations, 2015.

### **Energy (Variable) charges**

#### **Petitioner's submission:**

132. With regard to Energy charges claimed in the petition, the petitioner submitted the following:

*“The energy charges (Variable charges) cover fuel costs consisting following cost:-*

- a) Landed Fuel Cost of primary Fuel (Coal); and*
- b) Cost of Secondary Fuel Oil Consumption*

*and shall be payable for the total energy scheduled to be supplied to the beneficiary during the calendar month on ex-power plant basis, at the variable charge rates approved by the Commission.*

133. Based on the above, the Power Station wise Energy Charges Ex-bus filed by the petitioner are as given below”:-

Table 48: Energy Charges claimed in the petition (in ₹/ KWh)

S. No	FY 2016-17	FY 2017-18	FY 2018-19
ATPS PH-3	1.685	1.685	1.685
STPS PH-2&3	2.453	2.453	2.453
STPS PH-4	2.074	2.074	2.074
SGTPS PH-1&2	2.784	2.784	2.784
SGTPS PH-3	2.458	2.458	2.458
SSTPP PH-1	2.654	2.654	2.654

**Provisions in Regulation:**

134. For calculating the Energy (variable) charges of thermal power stations, Regulation 36 of the Regulation, MPERC (Terms and Conditions for determination of tariff) Regulation, 2015 provides as under,

*“36.5 The energy charge shall cover primary and secondary fuel cost and shall be payable by every beneficiary during the calendar month on ex-power plant basis, at the energy rate of the month (with fuel price adjustment). Total energy charges payable to the generating company for a month shall be:*

*(Energy charge rate in Rs./kWh) X {Scheduled energy (ex-bus) for a month in kWh.}*

36.6 Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places as per the following formula:

(i) For coal based stations

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

Where,

AUX = Normative Auxiliary Energy Consumption in percentage.

CVPF = Weighted Average Gross Calorific Value of coal as received, in kCal per kg, for coal based stations.

CVSF = Calorific Value of secondary fuel, In kCal per ml.

ECR = Energy Charge Rate, in Rupees per kWh sent out.

GHR = Gross Station Heat Rate, in kCal per kWh.

LPPF = Weighted average Landed price of Primary Fuel, in Rupees per kg, per liter or per standard cubic meter, as applicable, during the month. (In case of blending of fuel from different from

*different sources, the weighted average landed price of primary fuel shall be arrived in proportion to blending ratio)*  
*SFC = Specific Fuel Oil Consumption, in ml/kWh*

*LPSFi=Weighted Average Landed Price of Secondary Fuel in Rs./ml during the month*

36.7 The generating company shall provide to the beneficiaries of the generating station details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal etc., as per the forms prescribed to these regulations.

*Provided that the details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal and weighted average GCV of fuels as received shall be provided separately along with the bills of the respective month:*

*Provided further that a copy of the bills and details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal etc., details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal shall also be displayed on the website of the Generating Company. The details should be available on its website for a period of three months -----.*

### **Commission's analysis:**

135. The energy (variable) charges shall cover both primary and secondary fuel costs and shall be payable for the total energy scheduled to be supplied to beneficiary during the calendar month on ex-power plant basis.

### **Operating Parameters:**

136. With regard to Gross Station Heat Rate of existing power stations commissioned prior to 1.4.2012, the Commission fixed the power station-wise norms under the Regulations 39.2 of the Regulations, 2015 regarding the Station Heat Rate, the power stations commissioned during 1.4.2012 to 31.3.2016, Regulation 39.3 (C) (a) of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 provides the following;

*Existing Coal based thermal generating stations having COD on or after 1.4.2012 till 31.03.2016, (other than those covered under clause 39.2) shall be the heat rate norms approved during FY 2012-13 to FY 2015-16.*

137. Units of STPS PH-IV (unit 10 & 11) achieved COD on 18.08.2013 and 16.03.2014 respectively. The Commission issued final order for STPS PH-IV on 7<sup>th</sup> January, 2016. The norm for Station Heat Rate approved by the Commission in the aforesaid final tariff order is considered during the control period FY 2016-17 to FY 2018-19.
138. Units of SSTPP PH-I achieved COD on 01.02.2014 & 28.12.2014 respectively. The Commission issued the Order for provisional tariff on this generating station on 10<sup>th</sup> November' 2014 and 18<sup>th</sup> March' 2015 for Unit 1 and Unit 2 respectively. The final tariff petition for this power station yet to be filed by the petitioner. Therefore, the station heat rate as considered by the Commission in provisional tariff order is considered during the control period of FY 2016-17 to FY 2018-19 in this order.
139. For other power stations commissioned prior to 1.4.2012, the norm for station heat rate fixed under the regulation 39.2 (b) has been considered for determination of energy charges.
140. With regards to auxiliary energy consumption and specific consumption, the norms fixed under the Regulation, 2015 have been considered. Since all the MPPGCL's power stations are non pit head power stations, therefore, the norms for transit losses are considered as per the Regulation, 2015.
141. With regard to ATPS PH III the petitioner submitted that the quantity of coal available and received through MGR system is not sufficient to full fill the requirement of ATPS 210 MW. Therefore, the power station is considered as non pit head station.
142. In view of above the details of the operating norms for thermal power stations as specified in Regulations, 2015 for the control period FY 2016-17 to FY 2018-19 are as given below :

**Table 49: Norms for Operating Parameters**

Power Station	Unit	Norms for Operating Parameters					
		ATPS PH-III	STPS PH-II&III	STPS PH-IV	SGTPS PH-I&II	SGTPS PH-III	SSTPS PH-I
Gross Station Heat Rate	kCal/kWh	2450	2700	2400	2600	2425	2384
Aux. Energy consumption	%	9	10	9	9	6	5.25
Specific fuel oil consumption	MI/kWh	1.00	1.75	0.50	1.15	1.00	0.50
Transit Loss	%	0.8	0.8	0.8	0.8	0.8	0.8

**Gross Calorific Value of coal:**

143. In the subject petition the petitioner filed the power station-wise weighted average GCV of coal for September to November, 2015.
144. With regard to GCV of Coal for Coal based Thermal Power Stations, Regulation 36.6 (a) of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 provides that weighted average gross calorific value of coal **“as received”** in kCal per kg is considered for determination of energy charges. The aforesaid Regulation further provides that in case of blending of fuel from different sources, the weighted average GCV of primary fuel shall be arrived in proportion to blending ratio.
145. The petitioner in para 7.4 of the petition, submitted the following:

*“As per the existing practice, GCV on fired basis is used to determine cost of coal consumed for which samples are drawn from coal feeders. In order to comply with the above regulation, the modalities/matrix of blending ratio as prescribed in the order have been adopted on experimental basis to determine GCV of coal on as received basis in the TPSs of MPPGCL adopting the BIS procedures.*

*The Thermal Power Stations of MPPGCL receive coal from different sources like imported, washed (beneficiated) & raw (various grades). Further, this coal is received in the different ways like rail, road, belt etc. & is unloaded at site through various ways like tipplers, track hoppers, belt, trucks etc. Therefore, sampling of coal as received shall also require different arrangements like purchase of auto mechanical samplers & analyzers, work contracts etc. This will attract additional capital expenditure and gestation time.*

*To achieve the design GCV of particular boiler, the ratio of blending of these coals varies on day to day basis as per the coal receipt. Apart from this, coal stocked in the stock yard is also used in blending as per the requirement. Therefore, ascertaining the representative GCV of coal as received vis-à-vis designed GCV involves several complexities due to heterogeneous nature.*

*Time required for sampling of coal as received as per BIS standards may also result into demurrage charges from Railways for delay in the schedule unloading time. This additional time shall be on account of revised statutory requirements and safety reasons. This will be beyond control of*

*MPPGCL.MPPGCL shall be submitting a separate submission with comparative details, with request to grant legitimate relaxation.*

*In view of above, it is to submit that efforts are being made for switching over & regular reporting of GCV from fired basis to as received basis; however it may take further time to stabilize. In the meantime, GCV of Coal as fired of previous months is available with MPPGCL for calculation purposes. All out efforts are being made to switch over to GCV of coal as received basis from commencement of control period and the same shall be used in energy charges to be billed in accordance with the Regulations, 2015.*

*MPPGCL submits to bill energy charges on the basis of GCV as received basis, if otherwise not considered by the Commission, keeping other developments taking place in the country like pending decisions of case of NTPC.*

*The details of GCV as received are not available to the reasonable level of accuracy for Sept. to Nov.2015 therefore it is humbly requested to kindly determine the tariff considering the GCV on fired basis or subsequent submissions of MPPGCL during the process of determination of tariff-----“*

146. Vide letter dated 5<sup>th</sup> May' 2016, the petitioner was asked to file the power station wise weighted average GCV of coal “as received basis” for three preceding month in terms of Regulation 36.6 of the Regulation, 2015. The petitioner was also asked to file the GCV of coal as per bills/invoices raised by the coal companies along with the copies of invoices.
147. By affidavit dated 18<sup>th</sup> June' 2016, the petitioner filed the copies of bills/invoices raised by the coal companies for the coal supplied to the thermal power stations indicating GCV as billed by the coal companies. The petitioner submitted the power station wise weighted average GCV of coal “As received basis” for the available last three preceding month i.e. January to March, 2016, in terms of the Regulations, 2015. The petitioner has also filed the power station wise laboratory reports in support of weighted average GCV of coal “As received basis” for January to March, 2016. Details of power station wise Gross Calorific Value of coal as filed by petitioner in its additional submission are as given below-

**Table 50 : Gross Calorific Value of coal: (Kcal/kg)**

POWER STATION	Jan-16	Feb-16	Mar-16	Wt. Average GCV of Coal
ATPS PH-3	4099	4099	4161	4134
STPS PH-2&3	3634	3663	3543	3618
STPS PH-4	3634	3663	3543	3618
SGTPS PH-1&2	3724	3758	3757	3747
SGTPS PH-3	3724	3758	3757	3747
SSTPP PH-1	4041	3960	4309	4039

148. Power station wise weighted average gross calorific value of coal on “as received basis” as filed by the petitioner is considered for the determination of Energy Charges in this order.

#### Landed Cost of Coal:

149. Petitioner in TPS-15 of the petition worked out the power station wise weighted average landed price of coal during three preceding months i.e. September to November 2015.

150. Regarding the landed cost of coal, Regulation 36.8 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 provides as follows:

*“The landed cost of fuel for the month shall include price of fuel corresponding to the grade and quality of fuel 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 charge, and in case of coal 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 as given below:*

*Pithead generating stations: 0.2%*

*Non-pithead generating stations: 0.8%*

*Provided that in case of pit head stations if coal is procured from sources other than the pit head mines which is transported to the station through rail, transit loss of 0.8% shall be applicable:*

*Provided further that in case of imported coal, the transit and handling losses shall be 0.2%.*

151. Vide Commission letter dated 5<sup>th</sup> May’ 2016, the petitioner was asked to file



detailed calculation sheet for arriving at the weighted average rate of coal claimed in the petition along with all supporting documents. The petitioner was also asked to file the reason for higher landed price of coal in SSTPP and SGTPS as compared to other power stations without corresponding increase in GCV of coal.

152. By affidavit dated 18<sup>th</sup> June' 2016, the petitioner submitted the power station-wise details of weighted average rate of coal and quantity of coal received during the period of January to March 2016 as given below:-

**Table 51: Landed price of coal:- Rs. /MT**

Power station	Particulars	Unit	Jan-16	Feb-16	Mar-16	Wt. Avg. Rate of Coal
ATPS PH-3	Rate	Rs./MT	2864	2566	2643	<b>2688</b>
	Coal Received	MT	87626	91393	95879	
STPS PH-2&3	Rate	Rs./MT	2790	2871	2769	<b>2809</b>
	Coal Received	MT	585629	418240	377592	
STPS PH-4	Rate	Rs./MT	2790	2871	2769	<b>2809</b>
	Coal Received	MT	585629	418240	377592	
SGTPS PH-1&2	Rate	Rs./MT	2817	2647	2979	<b>2830</b>
	Coal Received	MT	460932	437474	579641	
SGTPS PH-3	Rate	Rs./MT	2817	2647	2979	<b>2830</b>
	Coal Received	MT	460932	437474	579641	
SSTPP PH-1	Rate	Rs./MT	3638	3580	4083	<b>3669</b>
	Coal Received	MT	376016	403103	115461	

153. With regard to the reasons for the higher landed price of coal in SSTPP and SGTPS, the petitioner submitted the following:-

*“In regard to SSTPP, Khandwa, it is to clarify that the coal linkage for the power station is from long distant mines of SECL. The coal linkage from nearby WCL mine was not provided. Though the basic price of the coal supplied is less in comparison to the freight charges charged by Indian Railways for delivering it from mines about more than 900 Km away to the power station is substantially high.*

*The Gol has recently issued directives, enabling Thermal Power Generating Companies for swapping the coal linkage between their thermal power*

stations. Accordingly, with the help of GoI, MPPGCL has swapped coal linked to PH-4, STPS Sarni (2x250MW) from WCL to PH-1, SSTPP, Khandwa (2x600MW) with SECL coal. The addendum to Coal Supply Agreement dated 08.01.2016 for above coal swapping is annexed as **Annexure-11** This attempt will reduce the landed coal rate to certain extent at SSTPP, Khandwa as the coal from nearby WCL mines will be supplied.

In case of SGTPS, Birsinghpur, it is to clarify that the reason for the Wt. Average Rate of Coal appearing to be on higher side in comparison to its GCV is mainly on account of change in mix of grade due to supply of coal from different mines.

The Case studies elaborating the variation in weighted average rate of coal on account of change in mix of grade due to supply of coal from different mines though the Wt. Average GCV of Coal coming in close proximity is enclosed as Annexure-12.

The case studies i.e. Case-1 , Case-2 and Case-3 clearly elaborates the fact that inspite of almost same Wt. Average GCV of coal, the Wt. Average Rate of Coal rises in range of 36% to 69% just because of change in the grade of Coal.

In the aforesaid case studies, MPPGCL has considered the Basic Coal rates for the purpose of calculations. The other loading elements such as Freight, Taxes Duties and other charges have not been considered for ease in understanding the analysis.

In order to further reduce the rate of coal, Minister of Power & Coal & Renewable Energy, Independent Charge has instructed M/s Coal India Limited (CIL) to limit the High grade coal (A+B) to 20% to thermal power stations.

In FY 2014-15 around 62% of the A+B high grade coal were supplied to the SGTPS from Korea Rewa area, this has been now drastically reduced to 24% in FY 2015-16. Further attempts are being made to restrict the supply of high grade coal to 20%. This attempt will reduce the Wt. Avg. price of coal to certain extent at SGTPS, Birsinghpur.

154. A meeting was convened in the office of the Commission on 5<sup>th</sup> July, 2016 with the concern officers of MPPGCL to understand the basis of billing and also to reconcile the landed cost of coal in invoice with the landed cost of coal filed by the Petitioner.
155. During the course of meeting, representative of MPPGCL informed that there are some other charges over and above the amount mentioned in the bills/invoices of coal i.e. transportation charges by rail/ship/road, entry tax, unloading charges etc, which needs to be considered separately on the basis of relevant documents.
156. In view of above, the Commission observed that the landed cost of coal filed by the petitioner by affidavit dated 18<sup>th</sup> June' 2016 is in line with the cost worked out by the petitioner based on the bills/invoices. Therefore, the same landed price of coal as claimed is considered for determination of energy charges in this order.
157. As per provision under the Regulations, 2015, landed cost of coal shall be arrived by considering normative transit and handling losses as percentage of the quantity of coal dispatched by the coal supply company during the month. The Commission observed that while determining the weighted average landed cost of coal, the petitioner has considered the normative transit and handling losses,. Therefore, the transit and handling losses are not considered in determination of Energy charges rate in this order.

#### **Landed cost of secondary fuel oil:**

158. The petitioner submitted that the landed cost of secondary fuel oil for determination of Energy charges are based on the weighted average cost of oil for the preceding three months and in absence of these the last procurement price before the start of tariff period is considered. The details of the weighted average rate of secondary fuel oil as filed by the petitioner is given below:-

**Table 52: Secondary fuel oil details for ATPS, Chachai**

Month	FO			LDO			Wt. Average Secondary Oil		
	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakh	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakh	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakh
Jun-14	2173.12	53080	1153.49	758.2	69557	527.44	2931.40	57342	1680.93
<b>Total</b>	2173.12	53080	1153.49	758.2	69557	527.44	2931.4	57342	1680.93

**Table 53: Secondary fuel oil details for STPS, Sarni**

Month	FO			LDO			Wt. Average Secondary Oil		
Month	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakh	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakh	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakh
Feb-15	2941.82	34109	1003.41				2941.82	34109	1003.41
Sep-15				133.93	43914	58.81	133.93	43914	58.81
Nov-15				51.00	45542	23.23	51.00	45542	23.23
Dec-15				137.81	45299	62.43	137.81	45299	62.43
<b>Total</b>	2941.82	34109	1003.41	322.74	44763	144.47	3264.56	35162	1147.88

**Table 54: Details of Secondary fuel oil for SGTPS, Birsinghpur**

Month	FO			LDO			Wt. Average Secondary Oil		
Month	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakh	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakh	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakh
Jun-15	1294.29	35758	462.81	1453.19	50915	739.89	2747.5	43775	1202.7
<b>Total</b>	1294.29	35758	462.81	1453.19	50915	739.89	2747.5	43775	1202.7

**Table 55: Details of Secondary fuel oil for SSTPP, Khandwa**

Month	FO			LDO			Wt. Average Secondary Oil		
Month	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakh	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakh	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakh
Aug-15				164.00	48851	80.12	164.00	48551	80.12
Sep-15	2291.65	24885	570.28	1002.11	41066	411.52	3293.76	29808	981.80
Dec-15				605.5	41447	250.96	605.50	41447	250.96
<b>Total</b>	2291.65	24885	570.28	1771.61	41917	742.60	4063.26	32311	1312.88

159. Vide letter dated 5<sup>th</sup> May' 2016, the petitioner was asked to file supporting documents (bills/invoices) in respect of price of oil filed in the petition. The petitioner was also asked to file the reason for higher rate of oil in ATPS Chachai.
160. By affidavit dated 10<sup>th</sup> June' 2016, the petitioner filed the copies of bills/invoices in respect of oil purchased at its Thermal Power Stations. With regard to higher rate of secondary fuel oil in ATPS Chachai, the petitioner submitted the following

*“the prices of Furnace Oil / High Speed Diesel / Light Diesel Oil are decided by Ministry of Petroleum, Gol as such MPPGCL has no control over it.*

*MPPGCL, wish to submit that Secondary Oil (Furnace Oil and LDO) at ATPS was last purchased in the month of June'2014 only. As part rack of*

Oil is not permitted by Indian Railways for ATPS, Chachai, therefore consolidated requirement for the year has been purchased in one lot. It is further to submit that the Wt. Average Rate of Secondary Oil is governed by the rate and mix of Furnace Oil and LDO and are detailed in Table No. 7.6.1 on page 31 of subject petition.

The Commission vide MPERC Regulation, 2015 proviso 29 read with proviso 36.6 provides for calculation of expenses on Secondary Fuel Oil based on based on procurement during three preceding months and in absence of procurement during last three months, the latest immediate procurement shall be considered. The same methodology has been adapted in the subject petition.

MPPGCL humbly request the Commission to kindly consider the request as submitted by MPPGCL in the original MYT petition dated 29.02.2016.

161. In view of the above, the rate of secondary fuel as filed by the petitioner is considered in this order. Accordingly, the power station-wise energy charges for the control period FY 2016-17 to FY 2018-19 worked out is given as below :

**Table 56: Computation of Energy charges**

S. No	Description	Unit	FY 2016-17 to FY 2018-19					
			ATPS PH-III	STPS PH-II&III	STPS PH-IV	SGTPS PH-I&II	SGTPS PH-III	SSTPP PH-I
1	Gross Station Heat Rate	KCal/kWh	2450	2700	2400	2600	2425	2384.25
2	Sp. Fuel Oil Consumption	ml/kWh	1.00	1.75	0.50	1.15	1.00	0.50
3	Calorific Value of Secondary Fuel Oil	ml/ kWh	10	10	10	10	10	10
4	Weighted Average Landed Price of the Primary Fuel	Rs./MT	2688	2809	2809	2830	2830	3669
5	Weighted Average Landed Price of Secondary Fuel	Rs./ML	57.34	35.16	35.16	43.76	43.76	32.31
6	Gross Calorific Vaue of the Primary Fuel as received	Kcal/Kg	4134	3618	3618	3747	3747	4039
7	Normative Auxiliary Energy Consumption	%	9	10	9	9	6	5.25
<b>8</b>	<b>Rate of Energy Ex-Bus</b>	<b>Rs./Kwh</b>	<b>1.807</b>	<b>2.383</b>	<b>2.051</b>	<b>2.204</b>	<b>1.987</b>	<b>2.298</b>

162. The base rate of the energy charges shall however, be subject to month to month adjustment of actual fuel price and actual GCV of coal on received basis.
163. The recovery of energy charges shall be made in accordance with Regulations 36.6 to 36.8 in case of thermal power stations and Regulations 37.5 to 37.7 of the Regulations, 2015 in case of hydro power stations.
164. The Commission would like to mention in this order that the approach for determination of Energy Charge Rate (ECR) in MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015 has been changed from GCV of coal on “**as fired basis**” to “**as received basis**” as specified by the Central Commission in CERC (Terms and Conditions of Tariff) Regulations, 2014 for determination of tariff of Generation Companies. In Writ Petition No. 1641 of 2014, Hon’ble High Court of Delhi vide its order dated 07.09.2015 directed the Central Commission to decide the issue i.e. at what stage the GCV of coal on “as received basis” should be measured. Vide order dated 25<sup>th</sup> June’ 2016 in Petition No. 283/GT/2014 CERC decided the issue. The relevant portion of aforementioned CERC’s order is extracted as under:

*“55. The only practicable alternative is to take samples from the wagons either manually or by installing Hydraulic Auger at the suitable places. GUVNL vide affidavit dated 30.11.2015 has submitted the video recording of the samples of coal being collected from the railway wagon at the generating stations of GSECL, namely at Ukai TPS and Wanakbori TPS. They have also filed the laboratory testing procedure of the samples taken from the wagons/ Coal Rakes at Wanakbori TPS. From the examination of the video recording, it is observed that samplings of coal were being collected from the railway wagons using Hydraulic Auger. The process of taking samples was found to be smooth, capable of taking representatives samples from any depth of the wagon, from different locations without taking too much of time and the process appears to be same and reliable. GSECL has been successfully using the Hydraulic Auger for collection of samples from the top of the wagons and NTPC and other generating companies can adopt and improvise the protocol for collection of samples from the wagons. As regards the threat to the safety of the personnel, the issue has been discussed in detail in para 41 of this order and the safeguards suggested in the said para should be adopted.”*

*“58. In view of the above discussion, the issues referred by the Hon’ble High Court of Delhi are decided as under:*

*(a) there is no basis in the Indian Standards and other documents relied upon by NPTC etc. to support their claim that GCV of coal on as received basis*

*should be measured by taking samples after crusher set up inside the generating station, in terms of Regulation 30(6) of the 2014 Tariff regulations.*

*(b) The samples for the purpose of measurement of coal on as received basis should be collected from the loaded wagons at the generating stations either manually or through the Hydraulic Auger in accordance with provisions of IS 436(Part 1/Section 1)-1964 before the coal is unloaded. While collecting the samples, the safety of personnel and equipment as discussed in this order should be ensured. After collection of samples, the sample preparation and testing shall be carried out in the laboratory in accordance with the procedure prescribed in IS 436 (Part 1/ Section 1)-1964 which has been elaborated in the CPRI Report to PSERC.”*

165. In view of the above, the petitioner and Respondents are directed to ensure that the GCV of coal on “as received basis” be considered in accordance with the above methodology decided by CERC.

### **Other Charges:**

#### **Petitioner’s Submission**

166. The petitioner claimed the compensation allowance, special allowance, MPERC Fee, water charges and cost of chemicals & consumables under the head of other charges in the petition.
167. The petitioner has filed the Fees payable to the Commission in accordance with the MPERC Fees, Fines & Charges (Revision-I) Regulation 2010 {RG-21(I) of 2010} for FY 2016-17, FY 2017-18 and FY 2018-19.
168. The Water Charges payable to GoMP have also been worked out by the petitioner at the rates specified by WRD for Thermal and Hydro Power stations.
169. The details of the power station wise MPERC fee, Water Charges and cost of chemicals & consumables for FY 2016-17, FY 2017-18 and FY 2018-19 are elaborated in para 14.6, 14.7 & 14.8 respectively of the petition.
170. The petitioner submitted that the Commission in "MPERC (Terms and Conditions of Generation Tariff) Regulations, 2015 {RG-26 (III) of 2015}", Regulation 36.1 has specified that the expenses towards Rent, Rates & Taxes payable to Government, Cost, any arrears paid to employees, SLDC Charges & Publication expenses shall be claimed separately. MPPGCL shall claim the same on actuals at the time of True-up of respective years.

171. The petitioner has also requested to permit the Insurance and Security expenses of plant and machinery of MPPGCL on actual basis in addition to normative O&M expenses under the head of Other Charges at the time of trueing up exercise of respective financial year of the control period.

**Commission's analysis:**

172. The Commission has already discussed the issue of compensation allowance and special allowance in foregoing paras of this order and allowed the power station-wise corresponding cost in this regard.

173. The petitioner is allowed to recover the rate, rent and taxes payable to the Government, cost of chemicals and consumables, fees to be paid to MPERC as per Regulations 35.7 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 subject to true-up based on audited accounts. The petitioner is allowed to recover water charges on usage of water, levied by the GoMP from the beneficiaries on pro-rata basis as per provisions under Regulations subject to true-up based on audited accounts.

174. With regard to insurance and security expenses, the aforesaid request of petitioner was examined and decided by the Commission in its order dated 2<sup>nd</sup> May' 2016 in petition No. 4 of 2016..

175. Based on the above, the summary of Annual Capacity (fixed) Charges and Energy (variable) Charges approved by the Commission for the control period FY 2016-17 to FY 2018-19 are as given below:

**Table 57: Head Wise Annual Capacity Charges Allowed**

S. No.	Particulars	AFC Allowed (₹ in Cr.)		
		FY 2016-17	FY 2017-18	FY 2018-19
1	Return on Equity	630.49	630.49	630.49
2	Interest on Loan	964.77	881.71	798.66
3	Depreciation	748.39	736.60	734.62
4	O&M Expenses	970.56	1031.95	1097.14
5	Compensation Allowance	6.30	6.30	6.30
6	Special Allowance	77.15	82.05	87.26
7	Interest on Working Capital	366.59	368.10	370.04
<b>Total Capacity (fixed) Charges</b>		<b>3764.24</b>	<b>3737.20</b>	<b>3724.50</b>



**Table 58: Power Station Wise Capacity Charges Allowed**

S. No	Power Stations	AFC Allowed (in ₹ Cr.)		
		FY 2016-17	FY 2017-18	FY 2018-19
1	ATPS PH-III	217.33	214.21	211.32
2	STPS PH-II & III	370.02	388.28	407.73
3	STPS PH-IV	717.85	705.36	693.44
4	SGTPS PH-I&II	420.90	434.42	448.83
5	SGTPS PH-III	417.31	410.22	403.56
6	SSTPP PH-I	1356.74	1328.73	1301.35
	<b>TOTAL THERMAL</b>	<b>3500.15</b>	<b>3481.21</b>	<b>3466.23</b>
7	GANDHI SAGAR	12.16	12.94	13.76
8	PENCH	23.00	24.08	25.22
9	RAJGHAT	12.21	12.51	12.83
10	BARGI	15.09	15.69	16.34
11	BANSAGAR PH-I,II&III	148.68	139.36	140.23
12	BANSAGAR PH-IV (Jhinna)	15.88	15.24	14.61
13	MADHIKHEDA	31.63	30.58	29.55
14	BIRSINGHPUR	5.45	5.58	5.73
	<b>TOTAL HYDRO</b>	<b>264.10</b>	<b>255.98</b>	<b>258.27</b>
	<b>TOTAL</b>	<b>3764.24</b>	<b>3737.20</b>	<b>3724.50</b>

**Table 59: Energy (Variable) Charges Determined (₹ /Unit)**

S. No	Power Station	Energy Charges at ex-bus Bar for FY 2016-17 to FY 2018-19
1	ATPS PH-III	1.807
2	STPS PH-II & III	2.383
3	STPS PH-IV	2.051
4	SGTPS PH-I&II	2.204
5	SGTPS PH-III	1.987
6	SSTPS PH-I	2.298

176. The Commission issued the provisional tariff order in respect of Sri Singaji Thermal Power Plant (Stage II) District Khandwa (MP) allowing recovery of charges on provisional basis. The petition for determination of final generation tariff of this power station is yet to be filed by the petitioner. Therefore, the petitioner is allowed to recover of the annual capacity (fixed) charges determined and allowed by the Commission in its aforesaid order on provisional basis subject

to adjustment as per provisions under MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 on determination of final tariff by the Commission.

177. In exercise of the powers vested in it under Section 64 of the Electricity Act, 2003, the Commission directs that the generation tariff determined in this order shall be applicable from 1<sup>st</sup> April' 2016, and will continue to be operative till 31<sup>st</sup> March' 2019, under Multi Year Tariff Principles.
178. The petitioner must take steps to implement this order after giving seven (7) days' public notice in accordance to Regulation 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 must also provide information to the Commission in support of having complied with this order.
179. With the above directions, this Petition No. 08 of 2016 is disposed of

**(A. B. Bajpai)**  
**Member**

**(Dr. Dev Raj Birdi)**  
**Chairman**

**Date: 14<sup>th</sup> July, 2016**

**Place: Bhopal**

**Annexure-I Summary of Issue wise response filed by Petitioner:****A. Performance Parameters**

- (i) **Issue:** The performance of new and existing thermal power stations is inferior during last three years. The details of the operating parameters achieved by the new units of STPS PH-4 and SSTPP Stage-I during last three years are as given below:

Power Station	Particular	Unit	Operating Parameters achieved		
			FY 14	FY 15	FY 16 till Jan.
STPS PH-4 COD OF Units 10 No. – (18.08.2013) 11 No. – (16.03.2014)	PLF	%	35	48	44
	PAF	%	36	49	51
	Aux. Con.	%	13.43	10.90	10.50
	SHR	Kcal/ kWh	3642	2923	2713
SSTPP PH-I COD OF Units 1 No. – (01.02.2014) 2 No. – (28.12.2014)	Sp. Fuel Oil	ml/kWh	9.05	3.28	0.78
	PLF	%	-	26	43
	PAF	%	26	36	80
	Aux. Cons.	%	-	8.60	6.82
	SHR	Kcal/ kWh	-	2794	2481
	Sp. Fuel Oil	ml/kWh	-	4.40	1.59

- (i) **Issue:** In view of the above, the petitioner is required to explain the reasons for poor performance of the aforesaid new generating units alongwith action taken for improvement in performance of these units.
- (ii) **Issue:** The petitioner is also required to explain the reasons for inferior performance of the existing thermal generating units of STPS PH-2&3 and SGTPS PH-1&2.
- (iii) **Issue:** With regard to higher station heat rate of the thermal generating units, it is mentioned in the petition that, “due to paucity of funds and deferment of overhauls due to persistent power shortage in the State,

adequate maintenance could not be done”.

As per the load generation report issued by CEA, Madhya Pradesh is one of the surplus State. Therefore, the petitioner is required to justify its constraint in periodic overhauls of existing units in light of the aforesaid statement.

## **Petitioner’s Reply**

**A.** *In reference to poor performance of **STPS PH-4** during FY 14, FY 15 & FY 16, MPPGCL submits as under:*

### **i) FY 2013-14**

*The units No. 10 & 11 of STP Sarni was commissioned on 18.08.2013 & 16.03.2014 respectively. There were teething problems during initial stages of operation of these units which resulted lower performance in comparison to operational norms specified by the Commission. Major reasons are detailed hereunder:-*

- *Unit No 10 STPS, Sarni was stopped on 01.09.2013 to 12.09.2013 i.e. 12 days due to clinker formation.*
- *Unit No 10 STPS, Sarni was stopped on 15.10.2013 to 31.10.2013 i.e. 16 days ESP fly ash evacuation system.*
- *Unit No 10 STPS, Sarni was stopped on 15.01.2014 due to damage in Generator stator overhang portion.*
- *Due to poor Coal Quality at STPS Sarni, units had to run on partial load, during FY 2013-14.*

### **ii) FY 2014-15**

*The Generators of 2X250 MW units of STPS, Sarni had major outages due to manufacturing faults in FY 2014-15. The problems were also experienced in Ash Disposal system of newly commissioned units of STPS, Sarni which have been reviewed from the design point of view and modified. This led to operation of these units at lower load as detailed below-*

- *250 MW Unit No 10 at STPS, Sarni was under forced shutdown from 15.01.2014 to 21.06.2014 i.e. 158 days due to damage in Generator stator overhang portion.*

- 250 MW Unit No 10 at STPS, Sarni was stopped from 16.11.2016 to 29.11.2016 i.e. 14 days due to Ash Evacuation problem. It is prudent to mention that Unit no 10 & 11 had to run on partial load quite often due to frequent problem in Ash system of these newly commissioned units
- 250 MW Unit No 11 at STPS, Sarni was under forced shutdown from 20.01.2015 to 25.02.2015 i.e. 37 days due to Generator problem.
- Due to poor Coal Quality at STPS Sarni, units had to run on partial load, during the month of April-2014 to March-2015.

The above reasons have resulted in lower capacity utilization of machines than envisaged, during FY 2014-15.

The Forced outages resulted in frequent start and stop of units which subsequently resulted in higher oil consumption. Further, partial outage also caused higher oil consumption. Due to these reasons the loss was also incurred in terms of higher heat rate.

**iii) FY 2014-15**

Major reasons of low performance during FY 2015-16 are detailed hereunder:-

- Failure of GT of Unit No.11 contributed to low PLF by 31%.Reserved shutdown and backing down of units caused loss of PLF by 7.7%.
- Failure of GT of Unit No.11 contributed to low PAF by 31%.
- During long outage, some auxiliaries had to be run resulting in higher (%) Aux. Consumption. Further, Partial Loading due to Coal Shortage has also resulted in higher (%) Auxiliary Consumption.
- Partial loading due to backing down, which is beyond the control of MPPGCL, contributed for high heat rate.

**Action taken for Improvement of performance of Units No.10&11 STPS Sarni:**

- *The problem faced in Generator at STPS PH IV and problems in Generator & generator transformer of units has been rectified by M/S BHEL*
- *Certain modification in FLY ASH disposal system of STPS # 10 & 11 has been carried out and units are generally available for full load operation. Further modifications are also being done to have trouble free operation.*
- *To ensure sufficient quantity of domestic coal for Thermal Powers Stations of MPPGCL, coal diversion plan from one power station to other has been prepared and operated. As on 31.03.2016 the coal stock at STPS Sarni was 6.59 LMT.*
- *To ensure coal quality third party coal sampling is being done regularly.*
- *Efforts are being made to minimize the Unit tripping by adopting best O&M practices.*

*In view of above and looking to the improvement, units are generally available for operation at normative availability. However, the issue of backing down due to low system demand is beyond the control of MPPGCL which adversely affects all the operational parameters. The availability (PAF) of the STPS PH-4 for Mar'16 was 74.7%.*

**B.** *In reference to poor performance of **SSTPP PH-1** during FY 14, FY 15 & FY 16, MPPGCL submits as under:*

**i) FY 2013-14:**

*The unit No. 1 of SSTPP PH-1, Khandwa was commissioned on 01.02.2014. There were teething problems during initial stages of operation of the unit which resulted in lower performance in comparison to operational norms specified by the Commission. Major reasons are detailed hereunder:-*

- *Due to Coal Shortage at SSTPS Khandwa, unit had to run on partial load, during Feb- 14.*
- *In the month of Feb & March 14 due to Coal Shortage at SSTPS Khandwa, unit was kept under shutdown.*

**ii) FY 2014-15:**

Major reasons of low performance during FY 2015-16 are detailed hereunder:

- The unit No.1 of 600 MW at SSTPP Khandwa was kept under shut down during the year 2014-15 from 07-01-2015 to 11-2-2015 i.e. 36 days for generator internal inspection for some rectification work by M/s BHEL.
- The unit No.2 of SSTPP, Khandwa, which was commissioned on 28.12.2014 has initial teething problems & also suffered forced shut down from 21.01.2015 to 25.02.2015 i.e. 36 days due to failure of "Y" Phase Generator Transformer supplied by M/s. BHEL under Guarantee Period.
- During the month of April-2014 to Sept-2014 due to Coal Shortage at SSTPS Khandwa, Unit No 1 was either kept under shutdown or had to run on partial load.
- The Unit No.1 at SSTPP, Khandwa was under forced shut down from 13.12.2014 to 01.01.2015 i.e. 2 days for Generator and other remaining works by BHEL.

**iii) FY 2015-16:**

Major reasons of low performance during FY 2015-16 are detailed hereunder:

- RSD/ Backing down of units, which is beyond the control of MPPGCL, mainly contribute to low PLF by 43.8%.
- Problems in Generator cooling system and barring gear in Unit No.1 contributed to low by 5.8%.
- Due to outage of TDBFP of unit no 2, MDBFP was continuously run, which affected the Auxiliary Consumption. Backing down on units and RSD has also reflected on higher % of Aux. Cons.
- Backing down on units and starting /stopping due to RSD has reflected on Higher Specific Oil consumption

- *Partial loading due to backing down, which is beyond the control of MPPGCL also contributed for high heat rate.*

**Action taken for Improvement of performance of Units No.1&2 SSTPP**

**Khandwa:**

*The Initial major problem faced in Generator & generator transformer of units at SSTPP has been rectified by M/S BHEL. Further, it is to submit that all out efforts are made by MPPGCL for improvement in performance. However, the issue of backing down due to low system demand is beyond the control of MPPGCL which adversely affects all the operational parameters. In FY-16 PAF of the station was **81.7%** as against the MPERC target of 85%. In FY-17 (upto May'16) it is **99.27%**. Thus considerable improvement has been achieved by MPPGCL on this front.*

**C.** *In reference to poor performance of **STPS PH-2&3** during FY 14, FY 15 & FY 16, MPPGCL submits as under:*

**i) FY 2013-14**

*Major reasons of low performance during FY 2015-16 are detailed hereunder:*

- *The Unit No. 6 & 7 of STPS, Sarni had to run on partial load due to furnace draft problem.*
- *The Units of STPS PH-2 & 3, Sarni had to run on partial load during rainy season due to wet coal problem.*
- *The Unit No 8 at STPS, Sarni was under shut down from 15.10.2013 to 16.11.2013 i.e. 33 days due to damage in blades of L.P turbine.*
- *Due to poor Coal Quality at STPS Sarni, units had to run on partial load, during April-2013 to March-2014.*

**ii) FY 2014-15**

*Major reasons of low performance during FY 2015-16 are detailed hereunder:*

- *Unit No. 6 of STPS, Sarni was under shut down from 01.07.2014 to 20.09.2014 i.e. 71 days for Need Base R&M Works.*
- *Unit No. 7 of STPS, Sarni was under shut down from 12.12.2014 to 20.02.2015 i.e. 70 days for Need Base R&M Works.*



- Unit No. 9 at STPS, Sarni was under shut down from 08.08.2014 to 18.10.2014 i.e. 72 days for Need Base R&M Works.
- In the month of May-14, June-14, Dec 14 & March-15, some units of STPS Sarni were kept under shutdown due to Coal Shortage.
- Due to Coal Shortage problem during April-14 to March -15, units of STPS, Sarni had to run on partial load.
- Due to poor Coal Quality at STPS Sarni, units had to run on partial load during the month of April -14 to March-15.

### **iii) FY 2015-16**

Major reasons of low performance during FY 2015-16 are detailed hereunder:

- The Coal shortage problem during the first quarter at STPS PH-2 during FY 2015-16 has contributed to loss of PAF/PLF by nearly 7.7%.
- Backing down/ RSD of units of STPS PH-2 affected PLF by 20.9%.
- Damage of IP turbine at unit no 8 of STPS PH-3 contributed to low PLF by 33.4 %.
- Reserved Shut down of units of STPS PH-3 caused loss of PLF by 12%.
- Unit No 9 at STPS PH-3 was under forced shut from 23.05.2015 to 30.11.2015 i.e.192 days due to Generator Transformer "Y" Phase bushing ruptured and Caught fire.
- RSD / Backing down of units of STPS PH-3 have mainly contributed for Higher Auxiliary Consumption.
- Reserve Shut Down (RSD) / Backing down of units of STPS PH-2 &3, which is beyond the control of MPPGCL, have mainly contributed for Higher Auxiliary Consumption and Station Heat rate.

**D. In reference to poor performance of **SGTPS PH-1&2** during FY 14, FY 15 & FY 16, MPPGCL submits as under:**

### **i) FY 2013-14**

Major reasons of low performance during FY 2015-16 are detailed hereunder:

- Due to milling system problem at SGTPS, Birsinghpur, units had to run on partial load during April-13 to March-14.
- Due to Air Heater Problem at SGTPS, Birsinghpur, units had to run on partial load during April-13 to March-14.
- Due to poor Coal Quality at SGTPS, Birsinghpur, units had to run on partial load during April-13 to March-14.

**ii) FY 2014-15**

Major reasons of low performance during FY 2015-16 are detailed hereunder:

- During the month of May -14 to March.15, due to Coal Shortage at SGTPS, units were kept under shutdown.
- Due to Coal Shortage problem during April-14 to March -15 units of SGTPS had to run on partial load.

**iii) FY 2015-16**

Major reasons of low performance during FY 2015-16 are detailed hereunder:

- In the month of April-15 to Aug.-15, Jan.-16 and Feb-16 due to low system demand, which is beyond the control of MPPGCL, units of SGTPS Birsinghpur were kept under reserved shut down.
- In the month of April-15 to Feb.16, due to low system demand, which is beyond the control of MPPGCL, units of SGTPS Birsinghpur were run on partial load. RSD/ Backing down on units were major reason for low PAF/PLF and higher Auxiliary Consumption.
- In Unit No.4, Leakage in air heater tube (middle Bank), Partial loading, damaged insulation, leakage in high energy drain valve in unit no 3& 4 resulted in higher heat rate.

**E. In reference to MPPGCL's submission in petition towards "paucity of funds and deferment of overhauls ....." it is to submit as under:-**

- *It has been observed that cash flow by MPPMCL against the Bill raised MPPGCL were generally deferred which affected cash expenses towards Overhauls of Units of the Thermal Power Stations.*
- *As per the GoMP Notification dated 01.04.2012 MPPGCL has been carved out from Cash Flow Mechanism. As per Power Purchase Agreement, MPPMCL is to provide “Irrevocable Unconditional Revolving Letter of Credit”. However, the same is yet to be provided to MPPGCL. Liquidity crunch at MPPMCL is resulting in delayed payment of MPPGCL by MPPMCL as is leading to cash crunch in MPPGCL*
- *Regarding power shortage scenario it is to mention that this was referred for the period prior to FY 2013-14.*

## **B. Energy Charges:**

- (i) **Issue:** While claiming the energy charges, the petitioner has considered GCV of coal as fired basis for three preceding months.
- Regulation 36.6(a) of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 stipulated that the energy charge rate shall be determined based on weighted average rate of coal as ‘received’ basis.
  - Regulation 36.6(b) of the aforesaid Regulations, 2015 provides that “in case of blending of fuel from different sources, the weighted average gross calorific value of primary fuel shall be arrived at in proportion to blending ratio.

In view of the above, the petitioner is required to file the power station-wise weighted average GCV of coal “**as received basis**” for three preceding months in terms of Regulation 36.6 of the Regulations, 2015. The petitioner is also required to file the GCV of coal as per bill/invoice raised by the coal companies along with the copies of invoices.

## **Petitioner’s Reply**

As desired by the Commission, the capacious copies of Coal Bills/invoices raised by Coal Companies for the coal supplied to the thermal power stations directly, diverted & swapped indicating GCV as billed are annexed as under:

	Name of Power Station	Month		
		Jan-16	Feb-16	Mar-16
1	<b>ATPS, Chachai</b>	Annexure-1		
2	<b>STPS, Sarni</b>	Annexure-2 Part- A & B	Annexure-3 Part- A & B	Annexure-4 Part- A & B
3	<b>SGTPS, Birsinghpur</b>	Annexure-5 Part- A & B	Annexure-6 Part- A & B	Annexure-7 Part- A & B
4	<b>SSTPP, Khandwa</b>	Annexure-8		

Further, as desired by the Commission, the power station-wise weighted average GCV of coal “**As Received basis**” for the available last three preceding months i.e. Jan-2016, Feb-2016 & March-2016 in terms of Regulation 36.6 of the Regulations, 2015, is annexed as **Annexure-9, 9A, 9B, 9C & 9D**. However the instant petition was filed on the basis of then available data i.e. for the month of Sept’2015, Oct’2015 & Nov’2015.

Further to above, MPPGCL vide letter No. 309 dated 02.03.2016 has informed the Commission regarding GoI Notification dated 29.02.2016 wherein the **Clean Energy Cess** has been enhanced from Rs.200 per MT to Rs. 400 per MT of Coal and renamed as “**Clean Environment Cess**”. However, due to loading of Entry Tax@3%, CST/VAT @ 2%/5% on this head, the differential increase in rate works out to **Rs. 213 per MT** in place of Rs. 200 per MT. MPPGCL humbly request the Commission to kindly consider the same while determining Energy Charge Rate and other Tariff Components for the control period FY 2016-17 to FY 2018-19.

It is also to mention that, the Coal India Limited has recently revised the prices of coal w.e.f. May’2016, the impact of which is not reflected in the information being provided to the Commission i.e. Invoices / Bill etc compiled as **Annexure-1 to 8**.

*In the matter, MPPGCL requests the Commission to kindly recall that, MPPGCL has filed Civil Appeal (CA No. 7620 of 2011) before the Supreme Court of India against the Tribunal's order dated 21.04.2011 in Appeal No. 24 of 2010. The aforesaid 2<sup>nd</sup> Appeal has been admitted by Supreme Court.*

*The matter relates to computation of Energy (Variable Charges) on "NCV" of coal on "As Fired basis" v/s "GCV" of Coal on "As fired basis" and is sub-judice in the Supreme Court of India under CA No. 7620 of 2011 admitted by the Apex Court.*

*MPPGCL highly appreciates the Commission's recent order dated 02.05.2016 in petition No. 4 of 2016 at para 5(a) (vi.), wherein MPPGCL has sought directives on the issue of NAPAF of Hydro Power Stations of MPPGCL. The Commission has taken stand that as the matter is sub-judice in the Supreme Court of India under CA No. 6320 of 2011 admitted by the Apex Court, accordingly, the norms of NAPAF of Hydro Stations cannot be discussed and are intact.*

*Therefore, for calculating Energy (Variable) Charge Rate (ECR) for Thermal Power Stations of MPPGCL as stated at proviso 36.6(a) of the Regulation, 2015 the **CVPF** (Wt. Average Gross Calorific Value of Coal) needs is to be based on Weighted Average GCV of coal on "**As Fired Basis**" in place of "As Received basis" as the matter being sub-judice under C.A. No. 7620 of 2011 before Supreme Court of India.*

*MPPGCL humbly request Commission to kindly consider the request as submitted by MPPGCL in the original MYT petition dated 29.02.2016*

- (ii) **Issue:** Laboratory test report in support of power station-wise weighted average GCV "as received basis" need to be filed in this regard.

### **Petitioner's Reply**

*As desired by Commission, the power station-wise Laboratory reports in support of weighted average GCV of coal "As Received basis" for Jan-2016, Feb-2016 & March-2016, is annexed as **Annexure- 9A, 9B, 9C & 9D.***

- (iii) **Issue:** With regard to details for computation of landed cost of coal filed in

Form TPS 15 prescribed under the Regulations, 2015, the Commission has observed the following:

- (a) Unit No. 3 & 4 of ATPS, Chachai were decommissioned and these units were pit-head units. Presently, only one unit (210 MW) is running at ATPS, Chachai. Therefore, the reason of considering ATPS, 210 MW as non-pit head unit needs to be explained. The status of coal available vis-a-vis requirement of coal for this unit be also informed.

### **Petitioner's Reply**

*It is to mention that Fuel Supply Agreement (FSA) with SECL has been signed for 2x120 MW+1x210 MW units of ATPS, Chachai. As per FSA, coal is supplied to ATPS, Chachai from local pithead Sangma siding through MPPGCL owned MGR system and from non-pithead Korba Area mines through Indian Rail. The coal fetched through MGR system from pithead mines was used in 2x120 MW units as its Coal Handling Plant was specifically designed for this MGR system. The coal reserve of mines linked to Sangma siding has depleted and is on verge of exhaustion.*

*The coal received from non-pithead Korba area mines fetched through Indian Railway wagons was mostly unloaded in the Coal Handling Plant (CHP) of 210 MW unit as the CHP was designed for unloading of full Indian Rail coal rakes. For this reason, 210 MW unit is considered as a non-pithead unit, even after decommissioning of 2x120 MW units, as it is receiving coal from non-pithead Korba Area mines of SECL through Indian Railway wagons as well as coal from local pithead Sangma siding through MGR system. Therefore looking to the future coal supply from Korba Area mines of SECL, ATPS 210 MW Unit should be considered as Non-Pit head Station.*

*Further as desired by Commission, the statement indicating status of coal available vis-à-vis requirement of coal at ATPS PH-3 is annexed as **Annexure-1.***

*MPPGCL humbly request Commission to kindly consider the request as submitted by MPPGCL in the original MYT petition dated 29.02.2016.*

- (b) Detailed calculation sheet for arriving at the weighted average rate of coal claimed in the petition alongwith supporting documents be filed.

## Petitioner's Reply

*As desired by Commission the weighted average rate of coal for the period Jan'16 to Mar'16 has been worked out and annexed as **Annexure-10, 10A, 10B, 10C & 10D.***

*Further, the supporting documents already annexed as Annexure-1 to 8 as explained in reply of point B (i).*

- (c) Reasons for higher landed price of coal in SSTPP and SGTPS as compared to other power stations without corresponding increase in GCV of coal be explain.

## Petitioner's Reply

*In regard to SSTPP, Khandwa, it is to clarify that the coal linkage for the power station is from long distant mines of SECL. The coal linkage from nearby WCL mine was not provided. Though the basic price of the coal supplied is less in comparison to the freight charges charged by Indian Railways for delivering it from mines about more than 900 Km away to the power station is substantially high.*

*The GoI has recently issued directives, enabling Thermal Power Generating Companies for swapping the coal linkage between their thermal power stations. Accordingly, with the help of GoI, MPPGCL has swapped coal linked to PH-4, STPS Sarni (2x250MW) from WCL to PH-1, SSTPP, Khandwa (2x600MW) with SECL coal. The addendum to Coal Supply Agreement dated 08.01.2016 for above coal swapping is annexed as **Annexure-11** This attempt will reduce the landed coal rate to certain extent at SSTPP, Khandwa as the coal from nearby WCL mines will be supplied.*

*In case of SGTPS, Birsinghpur, it is to clarify that the reason for the Wt. Average Rate of Coal appearing to be on higher side in comparison to its GCV is mainly on account of change in mix of grade due to supply of coal from different mines.*

*The Case studies elaborating the variation in weighted average rate of coal on account of change in mix of grade due to supply of coal from different mines though the Wt. Average GCV of Coal coming in close proximity is enclosed as **Annexure-12.***

The case studies i.e. Case-1 , Case-2 and Case-3 clearly elaborates the fact that inspite of almost same Wt. Average GCV of coal, the Wt. Average Rate of Coal rises in range of 36% to 69% just because of change in the grade of Coal.

In the aforesaid case studies, MPPGCL has considered the Basic Coal rates for the purpose of calculations. The other loading elements such as Freight, Taxes Duties and other charges have not been considered for ease in understanding the analysis.

In order to further reduce the rate of coal, Minister of Power & Coal & Renewable Energy, Independent Charge has instructed M/s Coal India Limited (CIL) to limit the High grade coal (A+B) to 20% to thermal power stations.

In FY 2014-15 around 62% of the A+B high grade coal were supplied to the SGTPS from Korea Rewa area, this has been now drastically reduced to 24% in FY 2015-16. Further attempts are being made to restrict the supply of high grade coal to 20%. This attempt will reduce the Wt. Avg. price of coal to certain extent at SGTPS, Birsinghpur.

- (iv) **Issue:** In Form TPS-15B the petitioner has filed the details of secondary fuel oil purchased during three preceding months. Supporting documents (Bills/ invoices) in respect of price of oil purchased need to be filed.

### Petitioner's Reply

As desired by the Commission please find enclosed herewith the Bills/Invoices of Furnace Oil/LDO purchased at Thermal Power Stations detailed as under:-

<b>Sl. No.</b>	<b>Name of Power Station</b>	<b>Type of Secondary Fuel Oil</b>	<b>Reference</b>
<b>1</b>	<b>ATPS, Chachai</b>	<i>Furnace Oil</i>	<b>Annexure- 2A</b>
		<i>LDO</i>	<b>Annexure- 2B</b>
<b>2</b>	<b>STPS, Sarni</b>	<i>Furnace Oil</i>	<b>Annexure- 3A</b>
		<i>LDO</i>	<b>Annexure- 3B1</b>
			<b>Annexure- 3B2</b>



			<b>Annexure- 3B3</b>
<b>3</b>	<b>SGTPS, Birsinghpur</b>	<i>Furnace Oil</i>	<b>Annexure- 4A</b>
		<i>LDO</i>	<b>Annexure- 4B</b>
<b>4</b>	<b>SSTPP, Khandwa</b>	<i>Furnace Oil</i>	<b>Annexure- 5A</b>
		<i>LDO</i>	<b>Annexure- 5B1</b>
			<b>Annexure- 5B2</b>
			<b>Annexure- 5B3</b>

MPPGCL humbly request Commission to kindly consider the request as submitted by MPPGCL in the original MYT petition dated 29.02.2016.

- (v) **Issue:** The rate of secondary fuel oil in ATPS, Chachai is on higher side. The reasons for higher rate of oil need to be submitted.

### **Petitioner's Reply**

*MPPGCL wish to submit that the prices of Furnace Oil / High Speed Diesel / Light Diesel Oil are decided by Ministry of Petroleum, Gol as such MPPGCL has no control over it.*

*MPPGCL, wish to submit that Secondary Oil (Furnace Oil and LDO) at ATPS was last purchased in the month of June'2014 only. As part rack of Oil is not permitted by Indian Railways for ATPS, Chachai, therefore consolidated requirement for the year has been purchased in one lot. It is further to submit that the Wt. Average Rate of Secondary Oil is governed by the rate and mix of Furnace Oil and LDO and are detailed in Table No. 7.6.1 on page 31 of subject petition.*

*The Commission vide MPERC Regulation, 2015 proviso 29 read with proviso 36.6 provides for calculation of expenses on Secondary Fuel Oil based on based on procurement during three preceding months and in absence of procurement during last three months, the latest immediate procurement shall be considered. The same methodology has been adapted in the subject petition.*

*MPPGCL humbly request the Commission to kindly consider the request as*

submitted by MPPGCL in the original MYT petition dated 29.02.2016.

### **C. Capital Cost:**

**Issue:** While determining the opening capital cost as on 1<sup>st</sup> April, 2016, the petitioner has considered capital cost as on 31<sup>st</sup> March, 2015 as per Annual Audited Accounts. The additions of Rs. 232.71 Crores during FY 2015-16 also considered without any basis.

In view of the above, the petitioner is required to file the basis of claiming aforesaid additions during FY 2015-16 in different thermal power stations.

### **Petitioner's Reply**

*"In reference to aforesaid observations of the Commission, MPPGCL humbly submit as under:-*

- ❖ The proviso 7.11 of MPERC Regulation 2015 provides that in case of the existing projects, the generating company may be allowed tariff based on the admitted capital cost as on 1.4.2016 by Commission and projected additional capital expenditure for the tariff period 2016-17 to 2018-19 as per the provisions of said Regulations.*
- ❖ The Commission in MYT order for FY-14 to FY 16, Final Tariff order for STPS PH-4 and Bansagar PH-4 (Jhinna) and Provisional /Ad-Interim order for SSTPP PH-1 has determined the tariff and admitted the capital cost of the existing projects upto 31.03.2016.*
- ❖ The Commission has recently determined the True up Generation tariff of Power Stations of MPPGCL upto FY 2014-15. Thus, in the instant petition, MPPGCL has considered the Gross Block as on 1.4.2015 as per Audited Books of Accounts of MPPGCL for FY 2014-15.*
- ❖ Accordingly, MPPGCL has submitted the Provisional Capital expenditure incurred for FY 2015-16 for arriving at the Gross block as on 01.04.2016 as the finalization of Books of Accounts for FY 2015-16 of MPPGCL is under process. It is to mention that the said Provisional Capital Expenditures are in accordance and governed with the provisos of*

*MPERC Regulation, 2012.*

- ❖ *The Power station wise statements elaborating the details of Provisional Capital Expenditure during FY 2015-16 are annexed as **Annexure-1**.*
- ❖ *The source of funding in respect of aforesaid Provisional Capital Expenditures have already been elaborated at Table No. 9.6.1 page 47 of instant petition.*

*It is humbly requested before Commission to kindly consider the same.*

#### **D. Additional capitalization**

**A. Issue-**With regard to the additional capitalization filed in the petition, the petitioner is required to submit the details of additional capitalization claimed in FY 2016-17 and FY 2017-18 in terms of Regulation 20 of the MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015 {RG-26 (III) of 2015}. The petitioner is also required to file a comprehensive reply on the following issues with all relevant supporting documents:

- (i) **Issue:** Whether the proposed asset capitalization is on account of the reasons mentioned in the clauses of Regulation 20.1, 20.2 and 20.3 of the Regulation 2015.
- (ii) **Issue:** The year-wise schemes of proposed additional capitalization with full details for each work along with approved estimated completion cost and relevant Regulation applicable to them.
- (iii) **Issue:** The nature of additional works executed in each unit with its cost.
- (iv) **Issue:** The approval, if accorded by any competent authority.
- (v) **Issue:** Power station-wise and year-wise detailed list of proposed asset addition
- (vi) **Issue:** Reasons of delay in execution of work.

Details of the assets write-off if any, against the proposed asset additions.

#### **Petitioner's Reply:**

*"The power station wise submission of MPPGCL towards aforesaid additional capitalization is as under:-*

***ATPS PH-3 (210MW), Chachai.***

The projected Asset addition amounting to Rs. 20.14 Crores during FY 2016-17 & Rs. 13.86 during FY 2017-18 have been proposed by MPPGCL at ATPS PH-3 (210MW) as detailed at Table No.10.8.1 on Page No.59 of the instant petition.

The aforesaid projected Asset Capitalization mainly comprises of Essential and Statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation, 2015 under which the said work is covered is annexed as **Annexure-2**.

Further, the supporting documents in form of Detailed Project Reports (DPR) for aforesaid essential works to be carried out are annexed as **Annexure-3** for kind reference please.

The write-off (in any) against replacement in future years at Power Stations of MPPGCL shall be dealt in accordance with the Regulations and due care shall be taken during the True up exercise for respective year at a later date.

#### **STPS PH-4(2x250MW), Sarni.**

The projected Asset addition amounting to Rs. 333.68 Crores during FY 2016-17 have been proposed by MPPGCL at STPS PH-4 (2x250 MW) as detailed at Table No.10.8.1 on Page No.59 of the instant petition.

The Date of Commercial operation (CoD) of extension unit No.10 & 11 of STPS, Sarni PH-4 (2x250 MW) is 18.08.2013 & 16.03.2014, respectively. In accordance MPERC (Terms and Conditions for determination of Generation tariff), Regulations, 2012, the Cut-off date for the purpose of admittance of Additional Capitalization at STPS Sarni PH-4 is **31.03.2017**.

The aforesaid projected capitalizations are covered under the Original Scope of Work Estimate of Rs. 3514 Crores which has already been approved by Government of MP. The copy of said approval has been submitted before the Commission in the matter of determination of Final Generation Tariff of STPS PH-4 (petition No. 13 of 2015) as well as in the True up petition for FY 2014-15.

The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation, 2015 under which the said work is covered annexed as **Annexure-4**.

The projected asset additions at STPS PH-4(2x250 MW) shall be new assets & not against any of the write-off.

**SGTPS PH-1&2, Birsinghpur.**

The projected Asset addition amounting to Rs. 59.59 Crores during FY 2016-17 & Rs. 77.08 Crores during FY 2017-18 have been proposed by MPPGCL at SGTPS PH-1&2, Birsinghpur as detailed at Table No.10.8.1 on Page No.59 of the instant petition.

The aforesaid projected asset capitalization mainly comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation 2015 under which the said work is covered is annexed as **Annexure-5**.

Further, supporting documents in form of Detail Project Reports towards aforesaid essential works are annexed as **Annexure-6**.

The write-off (in any) against replacement in future years at Power Stations of MPPGCL shall be dealt in accordance with the Regulations and due care shall be taken during the True up exercise for respective year at a later date.

**SGTPS PH-3 (500 MW), Birsinghpur.**

The projected Asset addition amounting to Rs. 1.60 Crores during FY 2016-17 & Rs. 0.86 during FY 2017-18 have been proposed by MPPGCL at SGTPS PH-3 (500MW) as detailed at Table No.10.8.1 on Page No.59 of the instant petition.

The aforesaid projected Asset capitalization comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation 2015 under which the said work is covered annexed as **Annexure-7**.

Further, supporting documents in form of Detail Project Reports towards aforesaid essential works are annexed as **Annexure-8**.

The write-off (in any) against replacement in future years at Power Stations of MPPGCL shall be dealt in accordance with the Regulations and due care shall be taken during the True up exercise for respective year at a later date.

**SSTPP PH-1(2x600MW), Khandwa.**

The projected Asset addition amounting to Rs. 286.40 Crores during FY 2016-17 & Rs. 1.33 Crores during FY 2017-18 have been proposed by MPPGCL at SSTPP PH-1 (2x600 MW) as detailed at Table No.10.8.1 on Page No.59 of the instant petition.

The Date of Commercial operation (CoD) of extension unit No.1 & 2 of SSTPP, Khandwa PH-1 (2x600 MW) is 01.02.2014 & 28.12.2014, respectively. In accordance MPERC (Terms and Conditions for determination of Generation tariff), Regulations, 2012, the Cut-off date for the purpose of Additional Capitalization at SSTPP Khandwa PH-1 shall be **31.03.2017**.

The projected Asset capitalization during FY 2016-17 is covered under the Original Scope of Work Estimate of Rs. 7820 Crores which have been approved by the Government of MP. The copy of said approval is annexed as **Annexure-9**. Further the projected capitalization during FY 2016-17 are on account of Statutory works.

The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation, 2015 under which the said work is covered is annexed as **Annexure-10**.

The projected asset additions at SSTPP PH-1(2x600 MW) shall be new assets & not against any write-off.

**GANDHI SAGAR HPS**

The projected Asset additions amounting to Rs. 6.24 Crores during FY 2016-17 & Rs. 5.20 during FY 2017-18 have been proposed by MPPGCL at Gandhi Sagar HPS as detailed at Table No.10.8.1 on Page No.59 of the instant petition.

The aforesaid projected asset capitalization mainly comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation, 2015 under which the said work is covered is annexed as **Annexure-11**.

Further, supporting documents in form of Detail Project Reports towards aforesaid essential works are annexed as **Annexure-12**.

*The write-off (in any) against replacement in future years at Power Stations of MPPGCL shall be dealt in accordance with the Regulations and due care shall be taken during the True up exercise for respective year at a later date.*

**PENCH HPS**

*The projected Asset addition amounting to Rs. 0.41 Crores during FY 2016-17 & Rs. 2.05 Crores during FY 2017-18 have been proposed by MPPGCL at Pench HPS as detailed at Table No.10.8.1 on Page No.59 of the instant petition.*

*The aforesaid projected asset capitalization comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation, 2015 under which the said work is covered is annexed as **Annexure-13**.*

*Further, supporting documents in form of Detail Project Reports towards aforesaid essential works are annexed as **Annexure-14**.*

*The write-off (in any) against replacement in future years at Power Stations of MPPGCL shall be dealt in accordance with the Regulations and due care shall be taken during the True up exercise for respective year at a later date.*

**RAJGHAT HPS**

*The projected Asset addition amounting to Rs. 0.21 Crores during FY 2016-17 & Rs. 2.05 Crores during FY 2017-18 have been proposed by MPPGCL at Rajghat HPS as detailed at Table No.10.8.1 on Page No.59 of the instant petition.*

*The aforesaid projected Asset capitalization comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation, 2015 under which the said work is covered is annexed as **Annexure-15**.*

*The write-off (in any) against replacement in future years at Power Stations of MPPGCL shall be dealt in accordance with the Regulations and due care shall be taken during the True up exercise for respective year at a later date.*

**BANSAGAR PH-1, 2 & 3 HPS**

*The projected Asset addition amounting to Rs. 0.21 Crores during FY 2016-17 & Rs. 7.64 crores during FY 2017-18 have been proposed by MPPGCL at Bansagar PH-1,2&3 HPS as detailed at Table No.10.8.1 on Page No.59 of the*

*instant petition.*

*The aforesaid projected Asset capitalization comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation 2015 under which the said work is covered is annexed as **Annexure-16**.*

*Further, supporting documents in form of Detail Project Reports towards aforesaid essential works are annexed as **Annexure-17**.*

*The write-off (in any) against replacement in future years at Power Stations of MPPGCL shall be dealt in accordance with the Regulations and due care shall be taken during the True up exercise for respective year at a later date.*

#### **MADHIKHEDA HPS**

*The projected Asset addition amounting to Rs. 0.05 Crores during FY 2016-17 & Rs. 2.05 crores during FY 2017-18 have been proposed by MPPGCL at Madhikheda HPS as detailed at Table No.10.8.1 on Page No.59 of the instant petition.*

*The aforesaid projected asset capitalization comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation 2015 under which the said work is covered is annexed as **Annexure-18**.*

*The write-off (in any) against replacement in future years at Power Stations of MPPGCL shall be dealt in accordance with the Regulations and due care shall be taken during the True up exercise for respective year at a later date.*

#### **BARGI HPS**

*The projected Asset addition amounting to Rs. 0.05 Crores during FY 2016-17 & Rs. 5.53 Crores during FY 2017-18 have been proposed by MPPGCL at Bargi HPS as detailed at Table No.10.8.1 on Page No.59 of the instant petition.*

*The aforesaid projected asset capitalization comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation 2015 under which the said work is covered is annexed as **Annexure-18A**.*



*The write-off (in any) against replacement in future years at Power Stations of MPPGCL shall be dealt in accordance with the Regulations and due care shall be taken during the True up exercise for respective year at a later date.*

**BIRSINGHPUR HPS**

*The projected Asset addition amounting to Rs. 0.05 Crores during FY 2016-17 & Rs. 2.05 Crores during FY 2017-18 have been proposed by MPPGCL at Birsinghpur HPS as detailed at Table No.10.8.1 on Page No.59 of the instant petition.*

*The aforesaid projected Asset capitalization comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation 2015 under which the said work is covered is annexed as **Annexure-19**.*

*The write-off (in any) against replacement in future years at Power Stations of MPPGCL shall be dealt in accordance with the Regulations and due care shall be taken during the True up exercise for respective year at a later date.*

**Head Quarter:**

*The projected Asset addition amounting to Rs. 20.00 Crores during FY 2016-17 & Rs. 58.00 Crores during FY 2017-18 have been proposed by MPPGCL at Head Quarter as detailed at Table No.10.8.1 on Page No.59 of the instant petition.*

*The aforesaid projected Asset capitalization is on account of implementation of ERP project at MPPGCL. The work is covered under essential works to be carried out at the power stations.*

*The supporting document in form of draft Project Report for aforesaid work is annexed as **Annexure-20**.*

*The write-off (in any) against replacement in future years at Power Stations of MPPGCL shall be dealt in accordance with the Regulations and due care shall be taken during the True up exercise for respective year at a later date.*

**B.Issue:** In Gandhi Sagar hydro power station, the total GFA as on 01.04.2016 filed by the petitioner is Rs. 10.40 Cr. and the cumulative depreciation of this power station has reached up to 90% long back. However, in the subject petition, the petitioner has claimed additional

capitalization of Rs. 11.44 Cr. during the control period. The petitioner is required to justify its claim of asset addition of more than the total asset value of the station in light of the aforesaid issues in para (a) with supporting documents.

**Petitioner's Reply**

*"It is to submit that the projected Asset addition amounting to Rs. 6.24 Crores during FY 2016-17 & Rs. 5.20 during FY 2017-18 have been proposed by MPPGCL at Gandhi Sagar HPS as detailed at Table No.10.8.1 on Page No.59 of the instant petition.*

*The aforesaid projected Asset capitalization comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation 2015 under which the said work is covered is annexed as Annexure- 11."*

**C. Issue:** In SGTPS PH-I&II, the petitioner has claimed additional capitalization of Rs. 59.89 Cr. and Rs. 77.08 Cr. during FY 2016-17 and FY 2017-18 respectively. The petitioner is also availing compensation allowance to meet expenses on new assets of capital nature for this power station. In view of the aforesaid, the petitioner is required to justify its claim in light of the provisions under MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015.

**Petitioner's Reply:**

*"The projected asset addition amounting to Rs. 59.59 Crores during FY 2016-17 & Rs. 77.08 during FY 2017-18 have been proposed by MPPGCL at SGTPS PH-1&2 as detailed at Table No.10.8.1 on Page No.59 of the instant petition..."*

*The said capitalization comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and the relevant proviso of MPERC Regulation 2015 under which the said work is covered is annexed as Annexure-5.*

*Further, supporting documents in form of Detail Project Reports towards aforesaid essential works are annexed as Annexure-6."*

## E. Interest and finance charges

**Issue:** With regard to the loan component for proposed additional capitalization, the petitioner is required to file the loan documents/ agreements for the proposed asset capitalization along with the terms and conditions and other details like lending agency, period of loan, date and amount of sanction etc. The petitioner is also required to file all supporting documents in respect of power station-wise weighted average rate of interest claimed in the petition.

### Petitioner's Reply:

*“As desired by the Commission, the statement elaborating the funding of Projected Additional Capitalization during FY 2016-17 & FY 2017-18 through Loan component along with supporting documents is annexed as **Annexure-21**. Further, as desired, supporting documents in respect of power station-wise weighted average rate of interest considered in the petition is annexed as **Annexure-22** for reference please.”*

## F. Return on Equity

(a) **Issue:** In table 8.2.1 of the petition, additional normative equity for ATPS PH-3 of Rs. 23.39 Crores has been claimed. Further, the petitioner has indicated the adjusted normative equity as on 1st April, 2013 whereas, the Commission has already issued the true-up orders up to FY 2013-14. The petitioner is required to explain the basis of considering such equity adjustment in ATPS, Chachai prior to 01.04.2013 over and above the equity amount as on 31st March, 2014 admitted by the Commission.

### Petitioner's Reply

*“In respect of MPPGCL's claim of Additional Normative equity of Rs. 23.39 Crores at ATPS PH-3 in the instant petition, it is to submit as under:-*

- ❖ *The Commission in Final tariff order of ATPS PH-3 (210 MW) dated 01.05.2015 read with True up order for FY 2011-12 dated*

01.10.2014 has considered funding in proportion to asset capitalized as tabulated hereunder:

**Rs. Crores**

Financial year	Assets admitted By MPERC	PFC Loan	Equity	Total Funding	Diff. of Funding
<i>FY 2009-10 (as on CoD)</i>	906.11	691.87	214.24	<b>906.11</b>	<b>0</b>
<i>FY 2009-10 (from CoD to 3.03.2010)</i>	0	0	0	<b>0</b>	<b>0</b>
<i>FY 2010-11</i>	70.55	62.35	8.20	<b>70.55</b>	<b>0</b>
<i>FY 2011-12</i>	81.24	20.08	0.98	<b>21.06</b>	<b>-60.17</b>
<b>Total</b>	<b>1057.90</b>	<b>774.30</b>	<b>223.42</b>	<b>997.72</b>	<b>-60.17</b>

- ❖ *he Commission vide True order dated 01.10.2014 for FY 2011-12 has directed MPPGCL to provide the details of funding gap at ATPS PH-3 amounting to Rs. 60.17 Crores. Accordingly, MPPGCL has verified the sources of funding of tangible and intangible assets capitalized at ATPS PH-3 (210MW).*
- ❖ *On scrutinizing the past records of MPPGCL and erstwhile MPSEB, it was found that during FY 2009-10 there was gap in the amount of IDC levied upon MPPGCL by M/s PFC amounting to Rs. 167.33 Crores and it's corresponding funding. On further examining the records it was found that the amount of Rs. 57.29 Crores has been paid to M/s PFC towards Interest during Construction (IDC) for Loan No. 20101012 through the Cash Flow Mechanism of erstwhile MPSEB, prevailing at that point of time. As this payment was made through Cash Flow Mechanism (CFM) of erstwhile MPSEB/MP Tradeco, this amount was not captured as source of funding in the final tariff petition of ATPS 201MW.*
- ❖ *This amount of Rs. 57.29 Crores was paid by erstwhile MPSEB/MP Tradeco from its resources under CFM, therefore the same is to be treated as internal resources/Equity of the MPPGCL.*
- ❖ *Adopting the methodology of the Commission towards Funding with respect to Asset capitalized, MPPGCL has accordingly readjusted the said amount of Rs.57.29 Crores towards funding gap as under:*

**Rs. Crores**

Financial year	Assets admitted by MPERC	Funding				Diff of Funding
		PFC Loan	Equity	Internal resources	Total Funding	
<b>FY 2009-10 (as on CoD)</b>	906.11	691.87	214.24	0	<b>906.11</b>	<b>0</b>
<b>FY 2009-10 (from CoD to 3.03.2010)</b>	0	0	0	0	<b>0</b>	<b>0</b>
<b>FY 2010-11</b>	70.55	62.35	8.2	0	<b>70.55</b>	<b>0</b>
<b>FY 2011-12</b>	81.24	20.08	0.98	57.29	<b>78.35</b>	<b>-2.88</b>
<b>FY 2012-13</b>	1.50	4.38*	0	0	<b>4.38</b>	<b>2.88</b>
<b>Total</b>	<b>1059.40</b>	<b>778.68</b>	<b>223.42</b>	<b>57.29</b>	<b>1059.40</b>	<b>0</b>

\* Rs.1.50 Crores towards additional capitalization & Rs.2.88 Crores against the balance funding difference.

- ❖ The above mentioned explanation & the supporting documents in reference to payment of amount of Rs.57.29 Crores to M/s PFC by Erstwhile MPSEB/MP Tradeco through Cash Flow Mechanism (CFM) are accordingly submitted before Commission in the matter of True up FY 2012-13.
- ❖ Considering above, the Commission vide True Up order for FY 2012-13 Para 96 & 97 at Page 41 has directed MPPGCL to submit the approval of BoD for infusion of additional equity amounting to Rs.57.29 Crores in next true up petitions.
- ❖ As directed, MPPGCL has acquired the requisite BoD approval of equity amounting to Rs. 57.29 Crores for ATPS (210MW) & the same was submitted before Commission in the matter of True up petition for FY 2014-15. Further, it was requested before Commission to permit RoE/Intt. on Excess Equity on additional equity of Rs.57.29 Crores from FY 2011-12 onwards. The True up order for FY 2014-15 is recently issued wherein above is permitted by Commission.
- ❖ The adjustment of additional Normative Equity of Rs. 23.29 Crores at ATPS PH-3 as detailed at Table No.8.2.1 of instant petition is the part of above mentioned additional Equity of Rs. 57.29 Crores for the purpose of determination of RoE of ATPS PH-3.

Further, in respect of Commission's observation on Table No.8.2.1 of instant petition, Wherein MPPGCL has indicated adjusted Normative Equity as on 01.04.2013, it is to submit that, being a typographical error, the same may

*please be read as adjusted Normative Equity as on 01.04.2014.*

- (b) **Issue:** While considering the opening equity as on 1<sup>st</sup> April, 2016, the petitioner has considered equity addition during FY 2015-16 in different power stations. The petitioner is required to file basis for considering the equity addition in this regard.

### **Petitioner's Reply:**

*In reference to aforesaid observations of Commission, MPPGCL humbly submit as under:-*

- ❖ *The proviso 7.11 of MPERC Regulation 2015 provides that in case of the existing projects, the generating company may be allowed tariff based on the admitted capital cost as on 1.4.2016 by Commission and projected additional capital expenditure for the tariff period 2016-17 to 2018-19 as per the provisions of said Regulations.*
- ❖ *The Commission in MYT order for FY-14 to FY 16, Final Tariff order for STPS PH-4 and Bansagar PH-4 (Jhinna) and provisional /Ad-Interim order for SSTPP PH-1 has determined the tariff and admitted the capital cost of the existing projects upto 31.03.2016.*
- ❖ *The Commission has determined the True up of Power Stations of MPPGCL upto FY 2014-15. Thus, in the instant petition, MPPGCL has considered the Gross Block as on 1.4.2015 as per Audited Books of Accounts of MPPGCL for FY 2014-15.*
- ❖ *Accordingly, MPPGCL has submitted the Provisional Capital expenditure for FY 2015-16 to arrive at the Gross block as on 1.4.2016 as the finalization of Books of Accounts for FY 2015-16 is under process. It is to mention that the said capitalization is in accordance under the proviso of MPERC Regulation, 2012.*

*Corresponding to aforesaid provisional Capital expenditure for FY 2015-16, MPPGCL has submitted its funding through equity component to determine the Normative Equity as on 01.04.2016. The same is detailed at Table No.9.6.1 at Page No.47 of instant petition.”*

- (c) Issue: The petitioner has also filed equity addition in various power

stations during FY 2016-17 in respect of additional capitalization. The petitioner is required to file supporting document for approval of equity amount by the Board/competent authority for additional capitalization.

### **Petitioner's Reply**

*"As desired by Commission, the statement elaborating the funding of Projected Additional Capitalization during FY 2016-17 and FY 2017-18 through equity component along with supporting documents is annexed as **Annexure-23.**"*

### **G. Depreciation**

**Issue:** With reference to the Proviso of the Regulation 33.3 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015, the petitioner is required to furnish a statement showing the year-wise details of depreciation un-recovered, if any, till 31.03.2016 on account of availability lower than NAPAF in MPPGCL's power stations and ensuring adherence to third proviso under aforesaid Regulation 33.3.

The petitioner is also required to file the Asset-cum-Depreciation registers in support of depreciation worked out in this petition.

### **Petitioner's Reply**

" The proviso 33.3 of MPERC Regulations, 2015 provides as under:

***"..... any depreciation disallowed on account of lower availability of the generating station or generating unit shall not be allowed to be recovered at a later stage during the useful life and the extended life."***

*In reference to above, it is to submit that, in the Tariff/True up petitions of earlier years filed by MPPGCL, the depreciation has been worked and claimed in accordance with the relevant proviso of Regulations prevailing at that point of time.*

*The detailed voluminous working in this regard was submitted by MPPGCL before Commission in form of Power Station wise Asset- Cum-Depreciation Registers from FY 06 to FY 15 in the matter of True Up/Tariff petitions of*

respective years. Based on these submissions the Commission has permitted depreciation of respective power stations.

Further, the billing of fixed cost of respective years has been done in accordance with true up/tariff ordered issued by the MPERC for respective years after applying actual availability.

As such, in the instant petition, MPPGCL has not claimed any depreciation which was earlier disallowed by the Commission on account of lower availability of the generating station.

As desired by the Commission the Power Stationwise Asset-Cum-Depreciation Registers for FY 2015-16 to FY 2018-19 is annexed as **Annexure-24A, 24B, 24C, 24D, 24E and 24F.**”

#### **H. Compensation Allowance**

**Issue:** The petitioner is required to submit the details of all new assets of capital nature which are to be purchased out of compensation allowance claimed as per Regulation 23 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015 {RG-26 (iii) of 2015} for SGTPS PH 1 & PH 2.

#### **Petitioner’s Reply**

“It is to submit that, MPPGCL has proposed the Compensation Allowance at SGTPS PH-1 & 2 strictly in accordance with Regulation 23 of MPERC Regulations, 2015. The details of new assets of capital nature procured out of said Compensation Allowance shall be duly informed to the Commission in the True up petitions of respective years of the control period.”

#### **I. Special Allowance**

**Issue:** For STPS PH-2 & 3, the petitioner availed special allowance from FY 2011-12 onward. With reference to Regulation 22.3 of the MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015, the petitioner is required to furnish a statement showing the year-wise details of expenditure incurred or utilized from special allowance for performance improvement of the units.

#### **Petitioner’s Reply**



*“It is to submit that, MPPGCL has claimed the Special Allowance at STPS PH-2&3 strictly in accordance with Regulation 22.2 of MPERC Regulations, 2015. The item wise details of expenditure incurred out of Special Allowance shall be informed to the Commission in the True up petitions of respective years of the control period.”*

## **J. Interest on Working Capital**

- (a) **Issue:** With regard to cost of coal for working capital of thermal power stations, clause 34.1 (1) of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015, provides as under:

*“Cost of coal towards stock, if applicable, for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal stock storage capacity whichever is lower;*

*Cost of coal for 30 days for generation corresponding to the normative annual plant availability factor;”*

In view of the above, the petitioner is required to explain the basis of the cost of coal for two months considered in the petition in light of the power station-wise maximum coal stock storage.

### **Petitioner’s Reply:-**

*“MPPGCL wish to submit that the proviso 34.1 (a) clearly provides for considering 30 days (01 month) of cost of coal towards **stock** for Non-Pit Head stations corresponding to NAPAF.*

*Similarly, proviso 34.1 (b) clearly provides for considering 30 days (01 month) of cost of coal towards **generation** corresponding to NAPAF.*

*Therefore, total cost of coal considered by MPPGCL for calculating out Working Capital corresponds to 30+30=60 days (2 months).*

*The capacity of Coal yards at thermal Power Stations of MPPGCL are designed to store/stock coal corresponding to more than one month.”*

- (b) **Issue:** The petitioner has filed two months cost of oil for working capital.

Regulation 34.1 (1) (c) of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015, provides as under:

*“ Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;”*

In view of the above, the petitioner is required to justify its claim in accordance with the aforesaid provision under Regulations.

**Petitioner’s Reply:-**

*“MPPGCL wish to submit that the 34.1(c) of Regulations, 2015 provides for considering cost of two months of secondary fuel oil for calculation of Working Capital. Further, as per said proviso the cost of main secondary fuel oil i.e. Furnace Oil only has been considered for calculation of Working Capital by MPPGCL. The rates of Furnace Oil as considered are detailed in chapter-7 of said petition.*

- (c) **Issue:** The petitioner is also required to explain the basis and submit all supporting document for computing the rate of interest on working capital.

**Petitioner’s Reply:-**

*“As desired by the Commission, the supporting document with respect to Bank Rate of interest on working capital considered in instant petition prevailing on 01.04.2015 is annexed as **Annexure-25.**”*

**K. Other Charges:**

- a. **Issue:** The petitioner is required to file the basis of water charges and cost of chemicals & consumables filed in the petition with supporting documents.

**Petitioner’s Reply:-**

*“As desired by the Commission, the supporting document with respect to calculation of Water Charges for Thermal and Hydro Power stations are annexed as **Annexure-26A and 26B** respectively. The Water Charges for Thermal Power stations have been worked on 90% of the Allocated capacity. Similarly, for Hydro stations, the water charges have been worked on the rates of WRD of MP and corresponding Design Energy.*

*The supporting documents towards power station wise Cost of Chemical are annexed as **Annexure-26C.***

- b. **Issue:** The petitioner has filed projected expenditure on pension, gratuity and EL encashment in respect of personnel including existing pensioner's of the Board and pensioner's of M.P. Power Generating Co. Ltd. The petitioner is required to provide the detailed computation and basis in this regard. The petitioner is also required to justify its claim in light of the provisions of the applicable Regulations under which these expenses filed in this petition.

**Petitioner's Reply:-**

*"As per the Proviso 35.4 of MPERC Regulation, 2015 state that:-*

*In respect of M.P. Power Generating Company Ltd., the employee expenses considered in the above Operation and Maintenance expenses are excluding the pension and other terminal benefits. The funding of pension and other terminal benefit in respect of personnel including existing pensioner's of the Board and the pensioner's of M.P. Power Generating Company Ltd. shall be allowed in accordance with MPERC (Terms and Conditions for allowing pension and terminal benefits liabilities of personal of the board and successor entities) Regulation's, 2012 (G-38 of 2012).*

*Accordingly, MPPGCL has worked out the future cash flows for FY 2016-17 to FY 2018-19 based on Actuarial Valuation Report of MPPGCL as on 31.03.2012. The detailed working in this regard is annexed as **Annexure-27.***

- c. **Issue:** In para 13.2 of the petition, it is mentioned that the Terminal Benefits of the employees are based on Actuarial Valuation Report as on 31. 3. 2012. The petitioner is required to file a copy of such report in this regard...

**Petitioner's Reply:-**

*"As desired by the Commission the copy of Actuarial Valuation Report as on 31.03.2012 is annexed as **Annexure-28.***

**L. Final tariff petition for Shri Singaji Thermal Power Project:**

**Issue:** With regard to Shri Singaji Thermal Power Project it is observed that the petitioner instead of filing the final tariff petition has sought extension of provisional tariff for SSTPP till 31<sup>st</sup> March, 2019. The petitioner is required to file the reasons for not filing the final tariff petition for SSTPP stage-I till date. The

petitioner is also required to inform the present status and time line by which the final tariff petition shall be filed.

**Petitioner's Reply:-**

*"It is to humbly submit that, MPPGCL is in process of Finalization of Books of Accounts for FY 2015-16. Consequently, the Audit of Books of Accounts will be conducted by Statutory Auditor & AG Audit. On completion of said process, the Final tariff petition for SSTPP Stage-I (2x600MW) shall be filed before the Commission from the date of CoD of respective units to 31.3.2016.*

*It is humbly requested before the Commission to kindly determine the Provisional tariff of SSTPP PH-1 for FY 2016-17 to FY 2018-19 based on the information & forms submitted by MPPGCL in the instant petition. The same will be Trued up based on the Audited Books of Accounts of respective years."*

**M. Forms**

- a) **Issue:** In form TPS-1 regarding the summary sheet, the details at Sr. No. 2.1, 2.2 and 2.3 are not provided.
- b) **Issue:** Form 1(I) regarding statement showing claimed capital cost and form 1(II) regarding Return on Equity are not filed with the petition
- c) **Issue:** The information of additional capitalization in Form TPS 9A (except SSTPP) and financing of such additional capitalization in Form TPS 10-2 has not filed.
- d) **Issue:** The petitioner has not submitted form HPS-11. Therefore petitioner is required to furnish the reason for non submission of such forms or furnish the Form HPS-11.
- e) **Issue:** The information of additional capitalization in Form HPS 9A and financing of such additional capitalization in Form HPS-10 has not filed.

**Petitioner's Reply:-**

*The point wise submission of MPPGCL is as under:"*

- a. *As desired by the Commission, the Form TPS-1 incorporating the details at Sr. No. 2.1, 2.2 and 2.3 is annexed as **Annexure-6.***
- b. *The Form1(I) regarding statement showing claimed capital cost and form 1(II) regarding Return on Equity is annexed as **Annexure-7A & 7B.***

c. The Form TPS 9A regarding projected additional Capitalization is annexed as **Annexure-8** and details of financing of such additional capitalization in Form TPS 10-2 is annexed as **Annexure-9**.

d. As desired, Form HPS-11 is annexed as **Annexure-10**.

The Form HPS 9A regarding projected additional Capitalization is annexed as **Annexure-11** and financing of such additional capitalization in Form HPS 10 is annexed as **Annexure-12**.

**N. Non tariff income:**

**Issue:** The petitioner has not filed projected non-tariff income during the control period. The petitioner is required to file the power station-wise break up of non tariff/other income in accordance to the Regulation 53 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015.

**Petitioner's Reply:-**

"It is to submit; the Power House wise Projection for Non-Tariff income cannot be worked out at this point as the items covered under such head is not persistent in nature and keeps on varying randomly.

Accordingly the same shall be informed to the Commission in the True up petitions of respective years of the control period on actual basis.

**By affidavit dated 28<sup>th</sup> June, 2016, MPPGCL has filed its response on the Issues raised by the Commission vide letter dated 21<sup>st</sup> June, 2016, Issue Wise responses filed by the petitioner are as follows:**

**Issues:**

- a. Whether the addition of assets in power stations during FY 2015-16 is on account of the reasons mentioned in Regulation 20 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2012.
- b. Whether the assets capitalized during FY 2015-16 are under original scope of work. Supporting documents be also filed in this regard.
- c. Detailed break-up of above additional capitalization clearly indicating the cost towards ash pond or ash handling system, capital spares etc.

- d. With regard to additional capitalization in STPS PH-IV during FY 2015-16, the detailed break-up of works under additional capitalization indicating the amount towards IDC and start up fuel during FY 2015-16.
- e. Approved funding and actual funding of aforesaid additional capitalization along with supporting documents.
- f. If the capitalization of assets has been done beyond the cut-off date, the petitioner is required to justify its claim with reference to the provision under Regulation 20.2 of MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2012.

**Petitioner's Reply:-**

*"As desired by the Commission, the power Station wise information towards Provisional Additional Capitalization during FY 2015-16 considered in instant petition is as under:-*

**ATPS 210MW Extn. Unit No.5, Chachai:**

*The Provisional asset capitalization amounting to Rs.2.53 Crores have been considered by MPPGCL at ATPS Chachai (210MW) during FY 2015-16 as detailed at Table No.10.8.1 on Page No.59 of the instant petition.*

*The aforesaid capitalization is covered under the Original Scope of Work Estimate of Rs.1242.14 Crores for which approval has been already accorded by the GoMP. The copy of said approval has already been submitted before the Commission; however the same is once again annexed as **Annexure-1** for ready reference, please.*

*As the extension Unit No.5 of ATPS Chachai (210MW) has been commissioned on 10.09.2009, the same is governed by MPERC Generation Tariff Regulations, 2009. Accordingly, the Cut-off date for the purpose of Additional Capitalization at 210 MW ATPS, Chachai was 31.03.2012.*

*The aforesaid provisional additional capitalization has been claimed under proviso 20.2 (f) of MPERC Regulation, 2012, which provides for admittance of capital expenditure which is considered indispensable by the Commission for running the thermal generating station provided & in such case compensation allowance shall not be admissible.*

The statement elaborating the nature of each work, its provisional cost, Funding details is annexed as **Annexuer-2**.

**STPS (2X250MW) Extn. Unit No.10&11 Sarni:**

The provisional asset capitalization amounting to Rs. 76.83 Crores has been considered by MPPGCL at Sarni (2X250 MW) during FY 2015-16 as detailed at Table No. 10.8.1 on Page No.59 of the instant petition.

The aforesaid capitalization is covered under the Original Scope of Work Estimate of Rs.3514Crores, which has already been approved by the GoMP. The copy of said approval has already been submitted before the Commission in the matter of determination of Final Generation Tariff of STPS PH-4 (petition No.13 of 2015). However, the same is again annexed as **Annexure-3** for ready reference please.

The Date of Commercial operation (CoD) of extension Unit no. 10&11 of STPS, Sarni PH-4 (2X250 MW) is 18.08.2013 & 16.03.2014 respectively. In accordance to MPERC (Terms and Conditions for determination of Generation Tariff), Regulations, 2012, the Cut-off date for the purpose of Additional Capitalization at STPS Sarni PH-4 is **31.03.2017**.

The said capitalization is claimed under the following proviso of MPERC Regulations, 2012:

“20.1 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”

(c) Un-discharged liabilities

(d) Works deferred for execution.”

The statement elaborating the nature of each work, its provisional cost, funding details is annexed as **Annexure-4**.

The amount of IDC/ startup fuel if any under additional capitalization during FY 2015-16 shall be provide after finalization of Annual statement of accounts for FY 2015-16 of MPPGCL.

**SGTPS PH-1&2 Birsinghpur:**

The provisional asset capitalization amounting to Rs.5.36 Crores has been considered by MPPGCL at SGTPS Birsinghpur PH-1&2 during FY 2015-16 as detailed at Table No.10.8.1 on Page No. 59 of the instant petition.

The aforesaid projected asset capitalization mainly comprises of essential and statutory works to be carried out at the power station. The statement elaborating the nature of each work, its estimated cost and funding details along with supporting documents is annexed as **Annexure-5**.

The PH-1&2 of SGTPS Birsinghpur has been transferred to MPPGCL through Final Opening Balance Sheet notified by GoMP & is governed by MPERC (Terms and Conditions for determination of Generation Tariff), Regulations 2005 (G-26 of 2005), which do not specify any Cut-off date for the purpose of additional Capitalization.

The said additional capitalization is claimed under the proviso 19 (2.9) (f) of MPERC Regulations 2005, which provides any additional works / services, that became necessary for efficient and successful operation of generating station.

**SGTPS 500MW Extn. No.5 Birsinghpur:**

The provisional asset capitalization amounting to Rs.3.52 Crores has been considered by MPPGCL at SGTPS Birsinghpur (500 MW) during FY 2015-16 as detailed at Table No.10.8.1 on Page No. 59 of the instant petition.

These works are covered under the original work estimate of Rs.2300 Crores, approved by GoMP. The copy of approval and relevant supporting documents has already been submitted before the Commission, the same is once again annexed as **Annexure-6** for ready reference please.

The extension unit No. 5 of SGTPS Birsinghpur (500MW) has been commissioned on 28.08.2008 and governed by MPERC (Terms and Conditions for determination of Generation Tariff), Regulations 2005 (G-26 of 2005), which do not specify any Cut-off date for the purpose of additional Capitalization.

The said additional capitalization is claimed under the following proviso of MPERC Regulations, 2005:

(4) The Proviso 19 (2.9) (a) of MPERC Regulations, 2005 provides for capital



*expenditure actually incurred after the commercial date of operation due to deferred liabilities within the original scope of work.*

- (5) *The Proviso 19 (2.9) (e) of MPERC Regulations, 2005, which provides for procurement of initial spares included in the original scope of work ceiling Norms laid down in Regulation 18.*
- (6) *The Proviso 19 (2.9) (e) of MPERC Regulations, 2005, provides any additional works /services which became necessary for efficient and successful operation of generating station...*

*Further, proviso 20.2 (f) of MPERC Regulations 2012 provides for admittance of capital expenditure which is considered indispensable by the Commission for running the thermal generating station provided & in such case compensation allowance shall not be admissible.*

*The statement elaborating the nature of each work, its provisional cost, funding details is annexed as **Annexure-7**.*

#### **SSTPP PH-1 (2X600 MW), Khandwa**

*The provisional asset capitalization amounting to Rs.144.47 Crores has been considered by MPPGCL at SSTPP PH-1 (2X660 MW) during FY 2015-16 as detailed at Table No.10.8.1 on Page No. 59 of the instant petition.*

*These works are covered under the original work estimate of Rs.7820 Crores, approved by the GoMP. The copy of approval and relevant supporting documents has already been submitted before the Commission, the same is once again annexed as **Annexure-8** for ready reference please.*

*The statement elaborating the nature of each work, its estimated cost, funding details and relevant proviso of MPERC Regulation, 2012 under which the said work is covered is annexed as **Annexure-9**.*

*In this context, it is to mention that the copy PFC Loan Agreement & GoMP Equity approvals for SSTPP PH-1, Khandwa, were already submitted before the Commission vide Annexure 21 &23 of letter No.658 dated 26.05.2016.*

**Issue:** The additional capitalization claimed during FY 2015-16 be certified by the Statutory Auditor of MPPGCL.

**Petitioner's Reply:-**

*It is to humbly submit that the figures of additional capitalization submitted in the instant petition for FY 2015-16 are only on estimation basis and merely for the purpose of working out the Opening Gross Block of fixed assets as on 04.04.2016 in accordance with proviso 7.11 of MPERC Regulation 2015.*

*MPPGCL is in process of finalization of Books of Accounts for FY 2015-16. Thereafter, the Audit of Books of Accounts /Annual Statement of Accounts for FY 2015-16 will be conducted by Statutory Auditor & AG Auditor, accordingly.*

*Thus, the Audited additional capitalization during FY 2015-16 can be provided only after the Audit of Books of Accounts, which shall take time of around two months. The same shall be immediately submitted before the Commission on its availability. The detailed explanation shall be carried out in the True-up Tariff Petition for FY 2015-16.*

**Annexure-II**

**Comments offered by Respondent No.1 and the Petitioner's Response**

**MPPMCL's Comment:**

- (i) That, the petitioner has filed the instant petition for determination of Multi-Year Tariff for the Period FY 2016-17 to FY 2018-19, under provisions of Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for determination of Generation Tariff) Regulations, 2015. The Regulation 7.11 of the Regulation 2015, provides that the Commission will determine the tariff of the existing power stations based on the admitted capital cost as on 1.4.2016. The petitioner has filed this petition based on capital cost of its power stations approved by this Commission vide order dated 30.1.2016 passed in petition no. 16/2015 for true-up for FY 2013-14. It is respectfully submitted that the petition no. 66/2015 for determination of True-Up Tariff for FY 2014-15 filed by the MPPGCL is pending before this Commission. It is, therefore, requested that the proceedings in this petition may be kept in abeyance till the true-up tariff for FY 2014-15 has been determined and more realistic capital cost figures based on Audited accounts for the power stations of MPPGCL are available.

**Petitioner's Reply:**

*“It is to submit that MPPGCL has filed the instant MYT petition considering the Gross Block of Fixed Assets as per Audited Books of Accounts for FY 2014-15. In this regard, kindly refer para 10.2 at page No. 54 of instant petition, wherein MPPGCL has requested the Commission to consider the Gross block (Capital cost) as on 01.04.2015, as the True up petition for FY 2014-15 already filed before the Commission was in process at the time of filing MYT petition. The Order on said Trueup Petition has been recently issued by the Commission on 20.05.2016.*

*MPPGCL humbly request Commission to kindly consider the request as submitted by MPPGCL in the original MYT petition dated 29.02.2016.*

**MPPMCL’s Comment:**

- (ii) That, the petitioner under ‘para 14’ of the petition has mentioned that the petition for determination of Final Generation Tariff of SSTPP, Khandwa will be filed by it shortly. It is, therefore, requested that the final tariff for SSTPP, Khandwa Stage-I may be determined first and then final admitted cost of the project will be considered for determination of Multi-Year tariff for the period FY 2016-17 to FY 2018-19.

**Petitioner’s Reply:**

*“In this context, kindly refer proviso 25.3 and 25.4 of MPERC Regulation, 2015 which provides as under:-*

***“25.3 In case of the generating station declared under commercial operation prior to 1.4.2016, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.03.2016 shall be considered.***

***25.4 In case of the generating station declared under commercial operation prior to 1.4.2016, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.03.2016, the Commission shall approve the debt:***

***equity ratio based on actual information provided by the generating company.”***

*Considering aforesaid provisions, MPPGCL, in the instant MYT petition, has submitted the Gross block (Capital cost) of SSTPP Khandwa Stage- I as per the Audited Books of Accounts for FY 2014-15 along with exhaustive information / requisite Forms pertaining to SSTPP Khandwa Stage-I for determination of provisional tariff of this power Station for the control period FY-17 to FY-19 till filing of final tariff petition of this station.*

*Further, proviso 15.4 of Regulations, 2012 for the control period FY-14 to FY-16 during which the Units of SSTPP were commissioned (CoD) provides for provisional tariff i.e. 95% of Annual Fixed Cost till determination of Final Tariff by Commission.*

*Accordingly, the requests made by MPPGCL are in accordance with the provisions of applicable regulations only.”*

**MPPMCL’s Comment:**

- (iii)** That, the petitioner under ‘para 19’ of the petition has prayed for consideration of impact of proposed 7<sup>th</sup> Pay Commission Report in addition to normative O&M expenses allowed under the Regulations 2015. It is submitted that the Commission has already considered the impact of 7<sup>th</sup> Pay Commission while prescribing the O&M norms for the Tariff period FY 2016-17 to FY 2018-19 and it is therefore requested that no additional expenditure on account of 7<sup>th</sup> Pay Commission Report would be allowed to the petitioner.

**Petitioner’s Reply:**

*“Kindly refer the proviso 35.7, 35.8 & 35.10 of MPERC Regulation 2015 which stipulates the O&M norms for Thermal and Hydel power stations. Further, proviso 35.1 to 35.6 of MPERC Regulation 2015 elaborates the methodology adopted by the Commission for fixation of O&M Norms, which is basically based on average of past four years trends duly corrected for inflation.*

*It is to submit that, the above mentioned provisos therefore does not takes into consideration for impact of proposed 7<sup>th</sup> Pay Commission by the*

*MPERC in the prescribed O&M norms for the tariff period FY 2016-17 to FY 2018-19.*

*Accordingly, in the instant petition, MPPGCL has prayed before the Commission to consider the impact of proposed 7<sup>th</sup> Pay Commission Report in the O&M norms after its implementation at a later date. This is in line with the practice adopted by the Commission in past for permitting impact of 6<sup>th</sup> Pay Commission.*

*MPPGCL humbly request the Commission to kindly consider the request as submitted by MPPGCL in the original MYT petition dated 29.02.2016.”*

**MPPMCL’s Comment:**

- (iv) That, the petitioner under ‘para 19’ of the petition has requested this Commission for permitting expenses on Insurance and Security of plants and machinery of MPPMCL on actual basis in addition to normative O&M expenses. It is submitted that the Commission under Regulation 35.7 of the Regulations 2015 has very specifically mention the expenses which are admissible on actual basis in addition to normative O&M expenses. The expenses on Insurance and Security of the plants and machinery are not covered under Regulation 35.7 and hence shall not be allowed in any case.

**Petitioner’s Reply:**

*“Kindly refer 35.7, 35.8 and 35.10 of MPERC Regulation 2015, wherein the O&M norms for the stations are provided considering average of past four years actual expenses of MPPGCL duly corrected for inflation.*

*The CERC in its regulation has considered the Security and Insurance expenses while prescribing the O&M norms for the tariff period FY 2013-14 to FY 2018-19 for the central sector power stations such as NTPC and others.*

*However, in case of MPERC Regulation 2015, since the O&M norms are projected considering the historical trends, adequate provisions for these two expenses could not be made as these expenses were very meager & were not done in past by MPPGCL.*

*It is to submit that the expenses on Security and Insurance are becoming “must do” type of expenditure being necessary for safety of Plant Equipments.*

*Accordingly, in the instant petition, MPPGCL has requested before the Commission to kindly permit the security & insurance expenses on actual basis at the time of Truing up exercise of respective Financial year of the control period.”*

**MPPMCL’s Comment:**

(v) That, the petitioner under ‘para 20’ of the petition has requested this Commission to allow ‘GCV of coal as fired’ of the previous months for calculating the energy charges. The petitioner has work out the energy charges based on GCV of coal as fired basis. The prayer of the petitioner and calculations of Energy Charges done based on ‘GCV of coal as fired basis’ are totally against the provisions of Tariff Regulations 2015. As per provisions of Tariff Regulations 2015, the energy charges are to be worked out based on ‘GCV of coal as received basis.’ Regulation 36.6 (a) of the Regulations 2015 defines ‘CVPF’ as “weighted average gross calorific value of coal” as received in Kcal/Kg for coal based stations. It is, therefore, responsibility of the Generator to manage and keep all records of ‘GCV of coal as received’ and to submit the same to this Commission for working out admissible energy charges rate. It is humbly requested that the petitioner may be directed to file the data of GCV of coal on ‘As Received Basis’ and in absence of data regarding GCV of coal on ‘As Received Basis’ the GCV of coal as per bill of coal companies shall be taken into account for computation of energy charges and also to calculate receivable etc. for the purpose of calculation of interest on working capital.

**Petitioner’s Reply:**

*“In the instant petition, MPPGCL has submitted that as per the existing practice, “GCV as on fired basis” is being used to determine the cost of coal consumed for which samples are drawn from coal feeders of the bunkers. In order to comply with the MPERC Regulation 2015, the modalities/matrix of blending ratio as prescribed in the said regulation have been adopted on experimental basis to determine GCV of coal on “As received basis” in the Thermal Power Stations of MPPGCL adopting the BIS procedures.*

*The Thermal Power Stations of MPPGCL receive coal from different sources like Imported, Washed (beneficiated) & Raw (various grades). Further, this*

coal is received by different modes of transportation such as by Rail, by Road, by Belt etc. & is unloaded at site through various plant equipments such as Wagon Tippers, Track hoppers, Belt, Trucks etc. Therefore, sampling of coal as receiving end shall also require different sampling arrangements like purchase of Auto Mechanical Samplers & Analyzers, Work contracts for manual sampling etc. Adaptation of these arrangements will attract additional capital expenditure and gestation time.

To achieve the design GCV of particular boiler, the ratio of blending of these coals keeps on varying on day to day basis depending on the coal receipt from different mines and of different grade. Apart from this, coal stocked in the stock yard is also used in blending as per the requirement. Therefore, ascertaining the representative GCV of coal "As received" vis-à-vis "As designed GCV" involves several complexities due to heterogeneous nature of coal.

Time required for sampling of coal as received as per BIS standards may also result into demurrage charges from Railways for delay in the schedule unloading time. This additional time shall be on account of revised statutory requirements and safety reasons.

Considering above, MPPGCL, in the instant petition has considered GCV of Coal as fired of previous months for calculation purposes. Further it was submitted that all out efforts are being made to switch over to GCV of coal on "As received basis" from commencement of control period and the same shall be used in Energy Charges to be billed in compliance with the Regulations, 2015.

As directed by the Commission the power station-wise weighted average GCV of coal "**As Received basis**" for the available last three preceding months i.e. Jan-2016, Feb-2016 & March-2016 in terms of Regulation 36.6 of the Regulations, 2015, along with copy of Bills/Invoices of Coal, Laboratory test reports etc will be submitted by MPPGCL, shortly. However the instant petition was filed on the basis of then available data i.e. for the month of Sept-2015, Oct-2015 & Nov-2015.

It may be recalled that MPPGCL has filed Civil Appeal (CA No. 7620 of 2011) before Supreme Court of India against the Tribunal's order dated 21.04.2011

*in Appeal No. 24 of 2010. The aforesaid 2<sup>nd</sup> Appeal has been admitted by Supreme Court.*

*The matter relates to computation of Energy (Variable Charges) on “NCV” of coal on “As Fired basis” v/s “GCV” of Coal on “As fired basis” and is sub-judice in the Supreme Court of India under CA No. 7620 of 2011 admitted by the Apex Court.*

*MPPGCL highly appreciates the Commission’s recent order dated 02.05.2016 in petition No. 4 of 2016 at para 5(a) (vi.), wherein MPPGCL has sought directives on the issue of NAPAF of Hydro Power Stations of MPPGCL. The Commission has taken stand that as the matter is sub-judice in the Supreme Court of India under CA No. 6320 of 2011 admitted by the Apex Court, accordingly, the norms of NAPAF of Hydro Stations cannot be discussed and are intact.*

*Therefore, for calculating Energy (Variable) Charge Rate (ECR) for Thermal Power Stations of MPPGCL as stated at proviso 36.6(a) of the Regulation, 2015 the **CVPF** (Wt. Average Gross Calorific Value of Coal) needs is to be based on Weighted Average GCV of coal on “**As Fired Basis**” in place of “As Received basis” as the matter being sub-judice under C.A. No. 7620 of 2011 before Supreme Court of India.*

*MPPGCL humbly request Commission to kindly consider the request as submitted by MPPGCL in the original MYT petition dated 29.02.2016.”*

**MPPMCL’s Comment:**

- (vi) That, the petitioner under ‘Chapter 6’ of the petition has given the year-wise details of performance of its Thermal and Hydel Power Stations. From the perusal of the performance parameter it could be seen that performance of most of power stations is very below as compared to normative performance parameters. It is respectfully submitted that the tariff should be allowed strictly according to the norms and no relaxation in norms shall be provided in any case. Further, the petitions under ‘point 6.3’ and ‘point 6.4’ have prayed relaxation in NAPAF of Hydro Power Stations. The Commission has specified the NAPAF for hydel stations giving due consideration to all governing parameters and therefore it is prayed that no relaxation in NAPAF shall be allowed to the petitioner in any case.



**Petitioner's Reply:**

*"It is to submit that, MPPGCL has filed the instant petition strictly in accordance with operational norms prescribed by MPERC Regulation 2015.*

*MPPGCL further wish to submit that the hydro power stations of MPPGCL are mostly constructed on multipurpose dams. The stored water of dam is used primarily for Irrigation, Drinking Water and Generation of electricity from Hydel Power Stations. The O&M activities of these dams come under jurisdiction of Water Resource Department / Interstate Control Authority (in case of interstate projects.) Therefore release of water from a dam for running units of Hydro generating stations is totally controlled by respective WRD/interstate Control Authority.*

*The WRD/ Interstate Control Authority allocate the water for generation of power, depending on availability of water (Reservoir level) after considering irrigation/drinking water demand in the downstream of dam. Local administrative authorities also impose restrictions on running of units due to downstream requirement.*

*As such, Hydel units remain available/ready for generation but could not be run till telephonic/written permission from respective WRD/ISCB/State-administrative authority.*

*The major constraints of Hydro Power Station which affect Availability and recovery of Capacity Charges, even when units are available, are detailed at page No. 22 to 27 of instant petition.*

*As per proviso 6.3 of MPERC Regulation 2015, the multiyear principles adopted in these regulations seek to promote competition, adoption of commercial principles, efficient working of the Generating Company and are based on the Central Electricity Regulatory Commission (CERC's) Principles.*

*In this regard it is to mention in order to protect the interest of beneficiaries when generation is lower than the design energy due to poor rains, the CERC has considered 50% recovery of Fixed Charges as Energy Charges, which is directly related to actual generation and introduced the concept of NAPAF. However, for protecting the interest of Generators, the CERC has considered to review the targets for NAPAF.*

*Accordingly, the CERC has considered the past performance of plants of NTPC of last five years to accommodate the practical limitations imposed by way of pond levels in various seasons, restrictions imposed by Local Administration/Water Resource Departments/River Boards etc. and fixed the NAPAF values to near or below the actual performance achieved by plants of NTPC.*

*In line with the methodology adopted by CERC, in the instant petition, MPPGCL has requested the Commission for fixation of NAPAF of Hydro Power Stations of MPPGCL based on the past performance of these stations which is much below the NAPAF targets prescribed under MPERC Regulation 2015.”*

**MPPMCL’s Comment:**

- (vii) That, the petitioner under ‘Chapter 7’ has calculated the Energy Charges (Variable Charges) based on ‘GCV as fired’ basis instead of ‘GCV as received’ basis. As already prayed under reply to para 20 above, the Energy Charges are to be calculated based on ‘GCV as received basis’ and if the petitioner is unable to calculate the ECR based of ‘GCV as received basis,’ the Energy Charges shall be allowed based on ‘GCV of coal’ as billed by the coal supplier.

**Petitioner’s Reply:**

*“Kindly refer MPPGCL’s reply to point No. (v) wherein the explanation on above mentioned issue is elaborated at length.”*

**MPPMCL’s Comment:**

- (viii) That, the petitioner under ‘Chapter 8’ of the petition has calculated the ‘Return on Equity’ of its Thermal and Hydel Plant based on the Normative Equity of stations admitted by this Commission in true-up order dated 30.1.2016 for FY 2013-14 and considering Assets addition after FY 2013-14. From the perusal of the table 8.2.1. of the petition it could be seen that petitioner has claimed Additional Normative Equity of Rs.23.29 Crores for ATPS PH-3 towards funding of additional capitalization of FY 2011-12 through internal resources. This claim of normative equity addition is against the provisions of Regulations 2015 and therefore not admissible. Further, the petitioner has claimed additional normative equity of Rs.11.35 Crores w.r.t. Asset Addition in various stations during FY 2014-15. It is respectfully submitted that all the

stations against which additional normative equity has been claimed are old stations and as per provisions of Regulation 20 of Regulations 2015, no additional capital expenditure after cut-off date is admissible and therefore it is prayed that the same shall not be allowed.

Further, under Table 8.6.1 the petitioner has claimed normative equity addition of Rs. 39.84 Crores during FY 2015-16 but not submitted details of the same. It is, therefore, requested that the petitioner may be directed to submit the details of the aforesaid projected Asset capitalization. It is respectfully prayed that, until and unless the petitioner provides details of Projected Asset Capitalization and this Commission prudently check it, no addition capitalization will be allowed to the petitioner.

### **Petitioner's Reply:**

*"In respect of MPPGCL's claim of Additional Normative equity of Rs. 23.39 Crores at ATPS PH-3 in the instant petition, it is to clarify as under:-*

- *In the True up order for FY 2011-12 The Commission has allowed additional capitalization of Rs. 81.24 Crores at ATPS PH-3 (210MW). However, the RoE on funding of said capitalization through Equity/Internal resources was deferred by Commission subject to submission of supporting documents in the subsequent True up petition.*
- ❖ *On compliance to above directives, MPPGCL has submitted the desired information & supporting documents before the Commission in the matter of True up Petition of FY 2014-15 and requested to permit RoE/Interest on Excess Equity as per prevailing MPERC Regulations.*
- ❖ *Considering above, the Commission vide True up order for FY 2015-15 dated 20.05.2016 has admitted the Equity of Rs. 57.29 Crores and allowed Return on Equity on Normative Equity of Rs. 23.39 Crores from FY 2011-12 onwards.*
- ❖ *In anticipation, MPPGCL has considered the additional Normative equity of Rs. 23.29 Crores at ATPS PH-3(210 MW) in the instant petition.*

*In case of other stations wherein MPPGCL has claimed additional normative equity of Rs.11.35 Crores w.r.t. asset additions during FY 2014-15, it is to*

*submit that such stations are either transferred to MPPGCL from erstwhile MPEB/MPSEB through Final Opening Balance Sheet notified on 12.06.2008 or commissioned during the control period FY 2006-07 to FY 2008-09.*

*Accordingly, these stations were governed by MPERC Regulations 2005 which does not prescribe for any cut-off date for capital expenditure and provides for admittance of capital expenditure incurred for efficient running and operation of plant. The detailed explanation in this regard is already submitted before the Commission in the matter of True up petition for FY 2014-15.*

*The Commission vide True up order for FY 2014-15 dated 20.05.2016 has admitted the claim made by MPPGCL, however momentary deferred the asset addition towards Capital spares at old power Stations along with its funding subject to submission of further justification in subsequent Trueup petitions.*

*Further, in reference to projected Asset addition / Equity addition during FY 2015-16 as claimed in instant petition, it is inform that the detailed information along with supporting documents in this regard and as desired by the Commission has already been submitted before the Commission vide letter dated 26.05.2016.*

*The same has also been made available to MPPGCL vide this office letter No. 723 dated 08.06.2016.*

*MPPGCL humbly request the Commission to kindly consider the request as submitted by MPPGCL in the original MYT petition dated 29.02.2016.”*

**MPPMCL's Comment:**

- (ix)** That, the petitioner under 'Chapter 9' has calculated the Interest and Financial charges for its Thermal and Hydel Power Stations based on normative loan of the power stations based on normative loan admitted by this Commission under true-up order dated 30.1.2016 for FY 2013-14 and considering loan addition after FY 2013-14. From the perusal of the table 9.2.1. of the petition it could be seen that petitioner has claimed Additional Normative Loan of Rs. 32.90 Crores for ATPS PH-3 towards funding of additional capitalization of FY 2011-12 through internal sources. This claim of normative loan addition is against the provisions of Regulation 2015 and therefore not to be allowed. Further, the petitioner has claimed loan addition of Rs. 39.88 Crores w.r.t.

assets addition in various power stations during FY 2014-15. It is respectfully submitted that all the stations against which asset addition has been claimed are old stations and as per provisions of Regulation 20 of Regulation 2015, no additional assets addition is permissible after cut-off date and hence it is prayed that no additional loan shall be allowed to the petitioner for the purpose of determination of tariff.

### **Petitioner's Reply:**

*"In respect of MPPGCL's claim of Additional Normative Loan i.e. Excess Equity of Rs. 32.90 Crores at ATPS PH-3 in the instant petition, it is to clarify as under:-*

- *In the True up order for FY 2011-12 The Commission has allowed additional capitalization of Rs.81.24 Crores at ATPS PH-3 (210MW). However, the RoE/Interest on excess equity on funding of said capitalization through Equity/Internal Resources was momentary deferred by Commission subject to submission of supporting documents by MPPGCL in the subsequent True up petitions.*
- ❖ *On compliance to above directives, MPPGCL has submitted the desired information & supporting documents before the Commission in the matter of True up Petition of FY 2014-15 and requested to permit RoE/Interest on Excess Equity as per prevailing MPERC Regulations.*
- ❖ *Considering above, the Commission vide True up order for FY 2015-15 dated 20.05.2016 has admitted the Equity of Rs. 57.29 Crores and allowed interest on Excess Equity on Rs. 32.90 Crores from FY 2011-12 onwards.*
- ❖ *In anticipation, MPPGCL has considered the additional Normative equity of Rs. 32.90 Crores at ATPS PH-3(210 MW) in the instant petition.*

*In respect of MPPGCL's claim towards loan addition of Rs. 39.88 Crores w.r.t. assets addition in various power stations during FY 2014-15, it is to inform as under:*

- *Loan Addition of Rs. 36.36 Crores pertains to SGTPS PH-3 (500MW) w.r.t. funding of assets capitalized during FY 2014-15. The Extn Unit*

No.5 of SGTPS, Birsinghpur (500MW) was commissioned on 28.08.2008. Accordingly, it is governed by MPERC Regulations 2005 which does not prescribe for any cut-off date for capital expenditure and provides for admittance of capital expenditure incurred for efficient running and operation of plant. The Commission vide True Order for FY 2014-15 dated 20.05.2016 had admitted the asset addition of Rs.36.36 Crores along with its funding.

- Loan Addition of Rs. 3.52 Crores pertains to ATPS PH-3 (210 MW) w.r.t. funding of assets capitalized during FY 2014-15. The Extn Unit No.5 of ATPS Chachai (210MW) was commissioned 10.09.2009 and accordingly, governed by MPERC Regulations 2009. The said capitalization is claimed under proviso 20.2(c) & 20.2(f) of MPERC Regulation 2009. The detailed explanation in this regard along with supporting documents has already been submitted before the Commission in the matter of True up petition for FY 2014-15. The Commission vide True Order for FY 2014-15 dated 20.05.2016 had admitted the asset addition of Rs.0.13 Crores along with its funding.
- In anticipation, MPPGCL has considered the Normative Loan addition of Rs. 39.88 Crores in the instant petition.

*MPPGCL humbly request Commission to kindly consider the request as submitted by MPPGCL in the original MYT petition dated 29.02.2016.”*

**MPPMCL’s Comment:**

(x) That, the petitioner under ‘Chapter 10’ of the petition has work out the depreciation for its power stations. While working out the depreciation, the petitioner has shown projected asset addition of Rs. 232.71 Crores, Rs. 728.91 Crores and Rs. 177.67 Crores during FY 2015-16, FY 2016-17 and FY 2017-18 respectively against various power Houses. The petitioner has neither given details of asset addition nor given justification for asset additions. It is, therefore, requested that no asset addition shall be allowed to the petitioner for tariff determination purposes.

**Petitioner’s Reply:**

*“It is to submit that the additional information along with supporting documents such as power station wise Asset-Cum-Depreciation Registers, as desired by Commission w.r.t. projected assets additions during FY-16, FY-17 and FY-18 has already been submitted before the Commission vide letter dated 26.05.2016.*

*The same has also been made available to MPPGCL vide this office letter No. 723 dated 08.06.2016.*

*MPPGCL humbly request Commission to kindly consider the request as submitted by MPPGCL in the original MYT petition dated 29.02.2016.”*

**MPPMCL’s Comment:**

- (xi) That, the petitioner under ‘Chapter 14’ of the petition has submitted calculations of ‘Other Charges.’ The petitioner under point 14.3 has prayed for allowing Insurance and Security expenses of plant and machinery of MPPGCL on actual basis in addition to normative O&M expenses under the head ‘Other Charges.’ It is respectfully submitted that Regulation 35.7 of Regulation 2015 has very specifically mentioned the expenses which are payable on actual basis in addition to normative O&M expenses. The Insurance and Security expenses are not covered under the Regulation 35.7 and it is prayed that the same shall not be allowed.

Further, the petitioner has submitted claim for Water Charges and cost of chemical and consumables under Point 14.7 and 14.8 respectively, but not submitted any document in support of the claim. It is, therefore, request that the petitioner may be directed to submit the supporting document justify its claim, and expenses on water charges and cost of chemical shall be allowed only based on supporting document and prudent check by this Commission.

**Petitioner’s Reply:**

*“Kindly refer MPPGCL’s reply on point (iv) where in detailed explanation on the issue of Insurance and Security expenses of plant equipments and machinery of MPPGCL has been provided.*

*In respect of MPPGCL’s claim towards Water Charges and Cost of Chemical and Consumables, it is to inform that additional information along with supporting documents as desired by Commission has already been submitted before the Commission vide letter dated 26.05.2016.*

*The same has also been made available to MPPGCL vide this office letter No. 723 dated 08.06.2016.*

*MPPGCL humbly request Commission to kindly consider the request as submitted by MPPGCL in the original MYT petition dated 29.02.2016.”*

**MPPMCL’s Comment:**

- (xii) That, this Commission vide order dated 1.4.2013 passed in petition no. 02/2013, determined the Multi-Year Generation Tariff of the power stations of MPPGCL for the control period FY 2013-14 to FY 2015-16 based on norms specified under Tariff Regulations, 2012. The petitioner has already charged tariff accordingly. Subsequently, the petitioner has filed petition no. 16/2015 and 66/2015 for true-up of Generation Tariff for the period FY 2013-14 and FY 2014-15 respectively. On perusal of the aforesaid petitions it could be seen that most of the power station of the petitioner are performing abnormally below the norms fixed by this Commission. On account of low performance of the power stations, there is huge negative true-up of Annual Fixed Charges to the tune of Rs. 283.16 Crore and Rs. 521.51 Crores. The normative admitted / claimed Annual Fixed charges for the tariff period FY 13-14 and FY 14-15 are Rs. 1974.65 Crores and Rs. 2580.66 Crores respectively. From the above, it could be seen that the true-up tariff during FY 13-14 FY 2014-15 is 14.34% and 20.21% below the normative approved tariff. It is likely that the performance of power stations of the petitioner will not improve during the tariff period 2016-19. It is, therefore, prayed that only 80% of the normative Annual Fixed Charges may be allowed to the petitioner to avoid excess tariff and negative true up.

**Petitioner’s Reply:**

*“In respect of aforesaid observation, MPPGCL submit as under:-*

- *The decrease in the annual fixed charges of FY 2013-14 is mainly on account of decommissioning of three units of STPS Sarni and asset /equity reduction on account of settlement of water charges liability of erstwhile MPSEB with WRD GoMP.*
- *The decrease in the annual fixed charges of FY 2014-15 is on account of following:*

**(i) Shut down of old unit No. 3 & 4 of ATPS, Chachai:-**



Unit No. 3 and 4 of ATPS PH-2 has been retired w.e.f. 13<sup>th</sup> January 2015 and 1 May 2014 respectively by order of CEA New Delhi.

**(ii) Below par performance of old units No 6, 7 8 & 9 of STPS Sarni.**

The Need base R & M activities in unit no 6, 7, 8 & 9 of STPS Sarni have been completed. As a result of need based activities, better availability in old units has been achieved during FY 2015-16.

**(iii) Poor Performance of new unit No.10 & 11 of STPS Sarni:**

The Extn. Unit No.10 & 11 of STPS Sarni were commissioned by MPPGCL either during FY 2013-14. There were teething problems during initial stages of operation of these units.

It is to submit that all out efforts are made by MPPGCL for improvement in performance of these units as detailed hereunder:

- The problem faced in Generator of units at STPS PH-4 has been rectified by M/S BHEL.
- Engineering solution has been worked out and modification in FLY ASH disposal system of STPS # 10 & 11 has been carried out and units are now available for full load operation.
- To ensure sufficient quantity of domestic coal for thermal powers stations of MPPGCL, Coal diversion plan from one power station to other has been prepared.
- Efforts are being made to minimize the Unit tripping by adopting best O&M practices
- Improvement in all performance parameters is reflected during FY2015-16.

Further, MPPGCL has filed the instant MYT petition based on the Norms and procedure specified under MPERC Regulations 2015. The said regulation promotes for efficiency improvement does not provide for curtailment of Tariff based on past performance.”