

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



**Petition No. 53 of 2020**

**PRESENT:**

**S.P.S Parihar, Chairman**  
**Mukul Dhariwal, Member**  
**Shashi Bhushan Pathak. Member**

**IN THE MATTER OF:**

**Determination of Multi Tear Tariff (MYT) of MPPGCL's Thermal and Hydel Power Stations for the control period of FY 2019-20 to FY 2023-24 under Section 62 and 86(1)(a) of the Electricity Act, 2003 based on the MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020.**

**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 19<sup>th</sup> May' 2021)*

1. Madhya Pradesh Power Generation Company Ltd. (hereinafter referred to as “the petitioner” or “MPPGCL”) filed the Multi Year Tariff petition on 13<sup>th</sup> August' 2020 for determination of Generation Tariff of its Thermal and Hydro Power Stations for the control period of FY 2019-20 to FY 2023-24 under Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 {RG-(IV) of 2020}.
2. The subject petition has been filed under Section 62 and Section 86(1) (a) of the Electricity Act, 2003 and the petition is based on MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020.
3. Madhya Pradesh Electricity Regulatory Commission (hereinafter referred to as “the Commission or MPERC”) issued MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 {RG-(IV) of 2020} (hereinafter referred to as “the Regulations” 2020) for the new control period i.e. FY 2019-20 to FY 2023-24. These Regulations were notified in the Madhya Pradesh Gazette on 28<sup>th</sup> February' 2020.
4. The petitioner had also filed an Interlocutory Application (IA No. 19 of 2020) in the subject petition seeking condonation of delay in filing the subject MYT petition from the time line stipulated in Commission's order dated 6<sup>th</sup> May' 2020.
5. The details of the power stations/houses covered in the subject MYT 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
7	SSTPS (Khandwa) PH-II	2x660=1320 MW	28.03.2019

S. No	Power Stations	Installed Capacity (MW)	Year of Commissioning
	<b>Hydro Power Stations</b>		
8	Gandhi Sagar	5X23=115 MW	1960 to 1996
9	Pench HPS	2X80=160MW	1986-87
10	Rajghat HPS	3X15=45 MW	1998-99
11	Bargi HPS	2X45 90 MW	1988 & 1992
12A	Bansagar PH I	3X105=315 MW	1991 to 1992
12B	Bansagar PH II	2X15=30 MW	1997-98
12C	Bansagar PH III	3X20=60 MW	2001-02
13	Bansagar PH IV Jhinna	2X10 =20 MW	2006-07
14	Madhikheda	3X20=60 MW	2006-07
15	Birsinghpur	1X20=20 MW	1991-92

6. With regard to fixed charges filed in the petition, the petitioner submitted that it has filed the petition for True up of Generation tariff for FY 2018-19 before the Commission on 30.12.2019 (Petition No. 02 of 2020). Further, MPPGCL submitted that it has filed the final tariff petition for determination of generation tariff of SSTPP Stage-2 Khandwa before the Commission (Petition No. 25 of 2020) on 24.02.2020. Since, the orders of Commission on above mentioned petitions were awaited at the time of filing the subject petition, thus, MPPGCL has considered the same Opening Capital Cost, Opening Loans and Equity amount as on 01.04.2019 in the subject petition as filed by the petitioner as closing balances as on 31.03.2019 in the aforesaid petitions.
7. The power station wise Annual Capacity (fixed) charges and Energy (variable) charges filed by the petitioner for the control period FY 2019-20 to FY 2023-24 are as given below:

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

Name of Power House	Annual Capacity (Fixed) Cost (Amount in Rs. Crore)					Energy Charges (Rs./Unit)
	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 20 to FY 24
ATPS PH-3	200.65	199.64	183.78	188.59	189.63	1.622
STPS PH-2&3	403.50	412.11	421.07	430.37	439.94	3.239
STPS PH-4	660.89	659.59	653.97	642.72	630.68	2.459

SGTPS- PH 1&2	449.65	459.06	468.94	478.77	458.48	2.200
SGTPS PH-3	395.19	343.95	345.81	345.00	342.31	1.901
SSTPP PH-1	1374.41	1348.26	1322.13	1291.07	1260.40	2.823
SSTPS PH-2	1462.96	1506.92	1512.61	1503.17	1479.47	2.922
<b>Total Thermal</b>	<b>4947.26</b>	<b>4929.52</b>	<b>4908.32</b>	<b>4879.69</b>	<b>4800.90</b>	
Gandhi Sagar	14.29	17.52	36.31	55.22	59.22	
Pench	25.41	27.18	29.33	31.00	32.68	
Rajghat	11.65	12.18	12.61	12.83	13.05	
Bargi	17.24	18.74	19.76	20.58	21.34	
Bansagar PH-1,2&3	125.68	131.86	138.11	141.70	142.90	
Bansagar PH-4	9.24	9.43	9.59	9.66	9.76	
Madhikheda	20.69	21.54	22.12	21.98	21.80	
Birsinghpur	5.56	5.92	6.49	6.71	6.74	
<b>Total Hydel</b>	<b>229.75</b>	<b>244.37</b>	<b>274.32</b>	<b>299.69</b>	<b>307.49</b>	
<b>Total</b>	<b>5177.01</b>	<b>5173.90</b>	<b>5182.64</b>	<b>5179.38</b>	<b>5108.38</b>	

8. The element wise Annual Capacity (Fixed) Charges, Variable (Energy charges) and other charges filed by the petitioner for the control period FY 2019-20 to FY 2023-24 are as given below:

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

	Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
<b>Variable Cost</b>	Coal Cost & Sec. fuel					
	Oil Cost	9396.42	9396.42	9396.42	9396.42	9396.42
<b>Annual Capacity Charges</b>	Return on Equity	854.03	874.79	892.14	903.33	907.77
	Depreciation	1145.81	1132.21	1139.46	1157.12	1133.88
	Interest on Loan	1240.43	1178.63	1109.06	1021.60	913.22
	O&M Expenses	1424.75	1474.72	1526.62	1580.28	1635.70
	Interest on Working Capital	433.14	434.71	436.51	438.19	438.97
	Special Allowance	78.85	78.85	78.85	78.85	78.85
	<b>Total</b>	<b>5177.01</b>	<b>5173.90</b>	<b>5182.64</b>	<b>5179.38</b>	<b>5108.38</b>
	Other Charges	118.32	120.68	138.20	143.19	147.50
	<b>Total</b>	<b>5295.33</b>	<b>5294.57</b>	<b>5320.84</b>	<b>5322.57</b>	<b>5255.88</b>

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

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

Other Charges	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
MPERC Fees	1.263	1.263	1.263	1.263	1.263
Water Charges	97.51	98.50	114.83	117.92	121.01
Cost of Chemicals & Lubricants	19.55	20.91	22.11	24.01	25.23
<b>Total</b>	<b>118.32</b>	<b>120.68</b>	<b>138.20</b>	<b>143.19</b>	<b>147.50</b>

10. The petitioner broadly submitted the following in the subject MYT petition:

- a. *MPPMCL and three DISCOMS of MP have entered into a management and corporate functions agreement on 05.06.2012, whereby 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, three DISCOMS have not been made as respondents, separately.*
- b. *Rajasthan Rajya Vidyut Prasaran Nigam Ltd. (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) has 40.32% share in Rajghat Hydro Power Station and MSEB (Holding Co) & Maharashtra State Transmission Co. Ltd, Mumbai (hereinafter referred as Respondent No. 5) has 33.3% share in Pench Hydro Power Station operated by MPPGCL.*
- c. *MPPGCL was allocated 50% share of Installed Capacity (45MW) in Rajghat Hydro Power Station, an Interstate Bilateral Power Project between state of Madhya Pradesh and state of Uttar Pradesh, vide GoMP's "Madhya Pradesh Electricity Reform First Transfer Scheme Rules, 2003.*
- d. *Subsequently, MPPMCL had some dispute with UPPCL in regard to sharing of project cost of Rajghat Hydro Power Station. The dispute was finally got*

*resolved on the directives of Hon'ble APTEL, New Delhi, amicably by arriving at settlement between Principal Secretary, Energy, GoMP and Principal Secretary, Energy, GoUP in regard to Sharing of Project Cost and Installed Capacity (45MW). Hon'ble APTEL vide its order dated 12.09.2018 has endorsed this settlement Accordingly, the Government of Madhya Pradesh vide its Gazette Notification dated 19.06.2019 has enhanced the initial share of 22.5 MW (50%) allocated to MPPGCL out of total capacity of 45MW of Rajghat HPS to 26.85 MW (59.68%) with effect from 01.04.2000.*

- e. As a consequence of the above, the Energy, Assets, etc. vested on MPPGCL have also got enhanced. MPPGCL vide letter No. 1054 dated 11.09.2019 has informed Commission on the matter.*
- f. GoMP vide its notification dated 03.06.2006 has provided that MP Tradeco now MP Power Management Company Ltd (MPPMCL) shall purchase entire power from Genco at the tariff to be determined by MPERC.*
- g. MPPGCL entered into Power Purchase Agreements (PPAs) with MP Tradeco (now MPPMCL) on 29.11.2006 for existing power stations and on 04.01.2011 for new Thermal Power Stations. Further, the first amendment to the Power Purchase Agreement (PPA) dated 29.11.2006 towards Purchase of Power from then existing and ongoing Thermal and Hydel Units of M. P. Power Generating Company Limited, has been signed on 18.07.2017 at Jabalpur. This First Amendment in Agreement provides term period till retirement/ decommissioning of all Thermal and Hydel Power Stations of MPPGCL listed in the agreement. The PPAs for new power stations have also been amended from time to time. These PPAs provides that the tariff payable by Tradeco to Genco and terms & conditions related thereto shall be as determined by the State Commission. MPPGCL has accordingly been raising the bills of energy sold to Tradeco since 1.6.2005 as per the tariff determined by Commission from time to time.*
- h. Commission has notified MPERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2020 on 28.02.2020. This regulation is based on multiyear tariff principles and incorporated norms of operation for control period FY 2019-20 to FY 2023-24. Accordingly, this petition for determination of Multi Year generation tariff of power stations being operated by MPPGCL has been prepared.*

- i. The performance parameters and other Tariff elements have been duly elaborated in the petition. Based on these, the power station wise tariff has been determined under three heads:  
  
Energy charges (ECR)  
Fixed Cost  
Other charges*
- j. MPPGCL has filed the Petition for True up of Generation tariff for FY 2018-19 before the Commission on 30.12.2019 (Petition No. 02 of 2020). Further, MPPGCL has filed the Final tariff petition for determination of generation tariff of SSTPP Stage-2, Khandwa before Commission (Petition No. 25 of 2020) on 24.02.2020. The orders of Commission on above mentioned petitions are awaited.*
- k. In the instant petition, MPPGCL has considered the Opening Gross Block, Normative Loans and Equity amount as submitted by MPPGCL in the aforesaid petitions for determination of Tariff elements for the control period FY 2019-20 to FY 2023-24. The year wise power stations wise projected additional capitalizations of assets which are statutory and essential in nature complying to Regulations have been considered. The projected asset towards balance works etc pertaining to SSTPP Stage-2 upto cut-off date has been considered in this petition.*
- l. On 14.09.2019 due to heavy rains in the catchment area of Gandhisagar Dam, the inflow of water increased dangerously. The WRD authorities could not warn MPPGCL in time regarding fast rise in water level in the dam. The water started overflowing from the dam and sharply filling in to power station complex through ventilators. The ingress of water was so fast that the units of Gandhi Sagar HPS were submerged and the machines got damaged. The year wise projected capital expenditure towards Renovation & Modernization of all the 5 Units of Gandhisagar HPS has been considered in this petition. The future capital expenditure likely to be incurred towards various ongoing new projects of MPPGCL as detailed in subsequent Chapter shall be submitted before Commission through separate petitions.*
- m. It is submitted that Commission may kindly permit to recover additionally Other Charges on actual on account of MPERC Fees, Rate, Rent & Taxes, levies, Duties, Water Charges, EL encashment, Cost of Chemicals &*



*Consumables, Arrears to be paid to employees, publication expenses etc., levied by various authorities on the petitioner in accordance with the Acts, Rules, Regulations, Law, etc.*

11. With the above submissions in the subject petition, the petitioner prayed the following:
  - a. *Determine the generation tariff of power stations of MPPGCL for FY 2019-20 to FY 2023-24.*
  - b. *Permit additional recovery on actual payment basis, on account of levies, Rate, Rent & Taxes, duties, MPERC Fee, Water Charges, Cost of Chemicals & Consumables, EL encashment, Arrears to be paid to employees if any, Publication expenses 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 projected asset additions during FY 2019-20 to FY2023-24 in accordance with MPERC regulations 2020.*
  - e. *Permit recovery of expenses understated / not considered in this petition at a later stage, if required.*

### **Procedural History**

12. The Interlocutory Application in the subject petition was heard on 01<sup>st</sup> September' 2020, wherein the applicant explained the reasons for delay in filing the subject MYT petition. Having heard the petitioner, the Commission observed that the applicant made out sufficient cause in its explanation hence, delay in filing the subject petition was condoned. The Interlocutory Application No. 19 of 2020 in Petition No. 02 of 2020 was disposed of.
13. Motion hearing in the subject matter was held on 01<sup>st</sup> September' 2020 wherein the petition was admitted. Vide Commission's order dated 04<sup>th</sup> September' 2020, 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 25<sup>th</sup> September' 2020.



14. Vide letter dated 16<sup>th</sup> September' 2020, the petitioner confirmed that the copies of the subject petition have been served to all the Respondents in the matter.
15. Vide letter dated 25<sup>th</sup> September' 2020, the Respondent No. 1 had sought three weeks' time extension for filing reply to the petition. Considering the request, vide Commission's letter dated 9<sup>th</sup> October' 2020, the Respondent No. 1 was asked to file reply by 16<sup>th</sup> October' 2020.
16. Vide Commission's letter dated 9<sup>th</sup> October' 2020, 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 05<sup>th</sup> November' 2020.
17. By affidavit dated 30<sup>th</sup> December' 2020, the petitioner filed its response on the issues raised by the Commission.
18. The public notices inviting comments/suggestions from stakeholders were published on 14<sup>th</sup> January' 2021, in the following news papers
  - a) Patrika, Jabalpur (Hindi)
  - b) Swadesh, Gwalior (Hindi)
  - c) Express News, Bhopal (Hindi)
  - d) Raj Express, Indore (Hindi)
  - e) Pioneer, Bhopal (English)
19. Last date for offering comments/suggestions was 4<sup>th</sup> February' 2021. Vide letter dated 30<sup>th</sup> January' 2021, comments from one stakeholder Shri Rajendra Agrawal were received in the matter. By affidavit dated 20<sup>th</sup> February' 2021, the petitioner filed its response on each comment offered by the stakeholder. The response of the petitioner on the comments/objections filed by the stakeholder along with observation is mentioned in **Annexure I**, annexed with of this order.
20. The public hearing in the subject petition was held on 23<sup>rd</sup> February' 2021 through video conferencing. The representatives of the petitioner and stake holder participated in the public hearing.

21. Vide order dated 26<sup>th</sup> February' 2021, the Commission noted that despite additional time granted up to 16.10.2020, the Respondent No.1 had neither filed reply nor preferred to seek further time extension for filing its reply. It was further observed that the Respondent No. 1 filed its reply just before a day of public hearing after a delay of more than four months. The Respondent No. 1 has not even met the time line specified in the public notice for offering comments/suggestions for stakeholders. Hence, the reply filed by the Respondent No. 1 in the subject petition is not considered.

### **Capital Cost**

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

22. The petitioner has filed the Gross Fixed Assets (GFA) as on 1<sup>st</sup> April' 2019 on the following basis:
- For all power stations except SSTPP PH 2, the closing Gross Fixed Assets as filed in the true up petition for FY 2018-19 (Petition No 02 of 2020) are considered as opening Gross Fixed Assets as on 1<sup>st</sup> April' 2019. In case of power station SSTPP PH-2 (Unit 3&4), the closing Gross Fixed Asset as on 31<sup>st</sup> March' 2019 filed in the final tariff petition for FY 2018-19 (Petition No 25 of 2020) as per the audited accounts is considered as base figure as on 1<sup>st</sup> April' 2019.*
  - The power station-wise details of Gross Fixed Assets as on 1<sup>st</sup> April' 2018, proposed additional capitalization during FY 2018-19, asset deductions filed during FY 2018-19 and Gross Fixed Assets as on 1<sup>st</sup> April 2019 filed by the petitioner are as given below:*

**Table 5: Opening GFA as on 01.04.2019 as filed by the petitioner (Rs in Crores)**

<b>Station</b>		<b>Opening Gross Block 01.04.2018</b>	<b>Asset Additions FY 2018-19</b>	<b>Asset Deductions</b>	<b>Closing Gross Block 31.03.2019</b>
1	ATPS PH-3	1124.40	11.93	-0.01	1136.32
2	<b>ATPS Chachai</b>	<b>1124.40</b>	<b>11.93</b>	<b>-0.01</b>	<b>1136.32</b>
3	STPS PH-2&3	608.97	0.00	-4.37	604.60
4	STPS PH-4	3189.53	32.07	-0.05	3221.55
5	<b>STPS Total</b>	<b>3798.50</b>	<b>32.07</b>	<b>-4.42</b>	<b>3826.15</b>

6	SGTPS PH-1&2	2208.19	9.80	-2.91	2215.08
7	SGTPS PH-3	2038.99	34.28	-1.32	2071.94
<b>8</b>	<b>SGTPS Total</b>	<b>4247.18</b>	<b>44.07</b>	<b>-4.24</b>	<b>4287.02</b>
9	SSTPP PH-1	7275.93	59.76	0.00	7335.69
10	SSTPP PH-2	6448.76	235.10	0.00	6683.86
<b>11</b>	<b>Total Thermal</b>	<b>22894.77</b>	<b>382.95</b>	<b>-8.67</b>	<b>23269.04</b>
12	Gandhi Sagar	10.98	0.20	-0.02	11.16
13	Pench	103.40	0.06	0.00	103.46
14	Rajghat	102.17	5.49	-0.01	107.65
15	Bargi	88.43	0.05	0.00	88.48
16	Bansagar PH-1,2&3	1174.63	3.36	-0.67	1177.32
17	Bansagar PH-4	116.85	0.00	0.00	116.85
18	Birsinghpur	52.40	0.01	0.00	52.41
19	Madhikheda	217.99	0.02	-0.003	218.01
<b>20</b>	<b>Total Hydro</b>	<b>1866.85</b>	<b>9.19</b>	<b>-0.70</b>	<b>1875.34</b>
21	HQ	5.02	0.26	-0.16	5.12
<b>Total</b>		<b>24766.64</b>	<b>392.39</b>	<b>-9.54</b>	<b>25149.50</b>

23. The details of Gross Fixed Assets as on 1<sup>st</sup> April' 2019, additional capitalization claimed during the control period FY 2019-20 to FY 2023-24 and closing GFA as on 31<sup>st</sup> March' 2024 as filed by the petitioner are as given below:

**Table 6: Opening GFA, Asset Additions and Closing GFA as filed: (Rs in Crores)**

Sr. No.	Power Station	Opening Balance as on 01.4.2019	Asset Additions					Closing Balance as on 31.03.2024
			FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	
1	ATPS PH-3	1136.32	1.00	26.81	42.49	30.52	3.93	1241.07
2	STPS PH-2&3	604.60	0.00	0.00	0.00	0.00	0.00	604.60
3	STPS PH-4	3221.55	61.46	70.24	11.71	1.80	1.00	3367.76
4	SGTPS PH-1&2	2215.08	2.89	11.10	8.30	1.69	0.27	2239.33
5	SGTPS PH-3	2071.95	12.08	45.50	18.40	13.35	0.00	2161.28
6	SSTPP PH-1	7335.69	2.72	59.99	0.20	0.12	0.21	7398.93
7	SSTPP PH-2	6683.86	582.40	284.74	162.12	119.64	0.20	7832.96
	<b>Total Thermal</b>	<b>23269.05</b>	<b>662.54</b>	<b>498.39</b>	<b>243.23</b>	<b>167.11</b>	<b>5.61</b>	<b>24845.93</b>
8	Gandhi Sagar	11.16	0.14	26.26	160.46	36.56	14.66	249.24
9	Pench	103.46	4.72	8.25	8.55	4.57	7.50	137.05
10	Rajghat	107.65	0.13	4.00	1.30	0.50	0.00	113.58
11	Bargi	88.48	0.00	10.76	0.00	6.07	1.40	106.71
12	Bansagar PH-I,II&III	1177.32	3.04	50.85	28.20	23.23	3.15	1285.79

13	Bansagar PH-IV	116.85	0.10	1.84	0.25	0.00	0.00	119.04
14	Madhikheda	218.01	0.00	8.38	0.63	0.00	0.00	227.02
15	Birsinghpur	52.41	0.00	2.61	3.17	0.00	0.50	58.69
	<b>Total Hydro</b>	<b>1875.34</b>	<b>8.14</b>	<b>112.95</b>	<b>202.56</b>	<b>70.93</b>	<b>27.21</b>	<b>2297.12</b>
	<b>Total</b>	<b>25144.39</b>	<b>670.67</b>	<b>611.34</b>	<b>445.79</b>	<b>238.04</b>	<b>32.82</b>	<b>27143.05</b>

### Provisions in Regulation:

24. With regard to capital cost of the existing project, Regulation 21.3 & 21.4 of MPERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 provides that:

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

- (i) the capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, up to last true-up order issued by the Commission;*
- (ii) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these Regulations;*
- (iii) capital expenditure on account of renovation and modernization as admitted by the Commission in accordance with these Regulations;*
- (iv) capital expenditure on account of ash disposal including handling and transportation facility;*
- (v) capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
- (vi) capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

21.4 The capital cost in case of existing/new hydro generating station shall also include:

- (i) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and*

- (ii) *cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area*

**Commission's Analysis:**

25. Regulation 6.2 of the Tariff Regulations, 2020 provides that in case of an existing generating station or unit thereof, the application for determination of Multi-year tariff shall be made by the generating company based on admitted capital cost including additional capital expenditure already admitted in last true up order of the Commission and estimated additional capital expenditure for the respective years for the tariff period in accordance with the Tariff Regulations, 2020.
26. The petitioner has filed the same opening capital cost as on 1<sup>st</sup> April' 2019 for all the power stations / units (except SSTPP PH-II) as the closing capital cost filed by the petitioner in its true-up petition for FY 2018-19. For SSTPP PH-II, the petitioner has considered the same opening capital cost as on 1<sup>st</sup> April' 2019 as the closing capital cost as on 31.03.2019 filed in petition No. 25 of 2020 for determination of final tariff of SSTPP PH-II.
27. The Commission issued the last True-up Order for FY 2018-19 for MPPGCL's thermal and hydro power stations (in P-02/2020) on 29<sup>th</sup> April' 2021 based on the Annual Audited Accounts for FY 2018-19.
28. To workout the capital cost as on 1<sup>st</sup> April' 2019 for all power stations (except SSTPP PH 2), the Commission has considered the closing capital cost as on 31<sup>st</sup> March' 2019 as admitted in last true-up order for FY 2018-19 issued on 29<sup>th</sup> April' 2021 as the base opening capital cost as on 1<sup>st</sup> April' 2019 in this order. For SSTPP PH-II, the closing capital cost as on 31<sup>st</sup> March' 2019 as admitted in the final tariff order issued by the Commission in petition No. 25 of 2020 is considered as opening capital cost as on 1<sup>st</sup> April' 2019.
29. Accordingly, the power station-wise details of Gross Fixed Assets as on 1<sup>st</sup> April' 2019 considered in this order are as given below:

Table 7: Gross Fixed Assets as on 1.04.2019

(Rs in Crore)

S. No	Power Stations	GFA considered as on 01.04.2019
1	ATPS PH-3	1124.39
2	STPS PH-2&3	604.60
3	STPS PH-4	3209.04
4	SGTPS PH-1&2	2205.30
5	SGTPS PH-3	2052.05
6	SSTPP PH-1	7312.27
7	SSTPP PH-2	6336.21
	<b>Total Thermal</b>	<b>22843.86</b>
8	Gandhi Sagar	11.16
9	Pench	103.45
10	Rajghat	107.14
11	Bargi	88.45
12	Bansagar PH-1,2&3	1177.12
13	Bansagar PH-4	116.85
14	Madhikheda	218.01
15	Birsinghpur	52.41
	<b>Total Hydro</b>	<b>1874.58</b>
	<b>Total</b>	<b>24718.44</b>

**Additional Capitalization**

30. Regarding the additional capitalization during the control period of FY 2019-20 to FY 2023-24, the petitioner submitted the following:

*The proviso 26, 27 & 28 of MPERC Regulations 2020 provides for submission of projected additional capital expenditure for the control period FY 2019-20 to FY 2023-24 at existing projects.*

*Considering above, the year wise & Power Station wise projected additional asset additions during FY 2019-20 & FY-2023-24 along with its funding is detailed in Chapter 15- Additional Capitalization and Funding thereof. The summary of same is reproduced as under:*

(in Rs. Crores)

Stations		Projected Capital Expenditure				
		FY 20	FY 21	FY 22	FY 23	FY 24
1	ATPS PH-3	1.00	26.81	42.49	30.52	3.93
2	STPS PH-2&3	0.00	0.00	0.00	0.00	0.00
3	STPS PH-4	61.46	70.24	11.71	1.80	1.00
4	SGTPS PH-1&2	2.89	11.10	8.30	1.69	0.27
5	SGTPS PH-3	12.08	45.50	18.40	13.35	0.00
6	SSTPP PH-1	2.72	59.99	0.20	0.12	0.21
7	SSTPP PH-2	582.40	284.74	162.12	119.64	0.20
<b>8</b>	<b>Total Thermal</b>	<b>662.54</b>	<b>498.39</b>	<b>243.23</b>	<b>167.11</b>	<b>5.61</b>
9	Gandhi Sagar	0.14	26.26	160.46	36.56	14.66
10	Pench	4.72	8.25	8.55	4.57	7.50
11	Rajghat	0.13	4.00	1.30	0.50	0.00
12	Bargi	0.00	10.76	0.00	6.07	1.40
13	Bansagar PH-1,2 &3	3.04	50.85	28.20	23.23	3.15
14	Bansagar PH-4	0.10	1.84	0.25	0.00	0.00
15	Birsinghpur	0.00	2.61	3.17	0.00	0.50
16	Madhikheda	0.00	8.38	0.63	0.00	0.00
<b>17</b>	<b>Total Hydel</b>	<b>8.14</b>	<b>112.95</b>	<b>202.56</b>	<b>70.93</b>	<b>27.21</b>
18	HQ & S&I	0.00	0.00	0.00	0.00	0.00
<b>Total</b>		<b>670.67</b>	<b>611.34</b>	<b>445.79</b>	<b>238.04</b>	<b>32.82</b>

**Provisions under Regulations:**

31. With regard to additional capitalization beyond the original scope of work and after cut-off date of the project, Regulation 28.1 of the MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020 provides as under:

**26. Additional Capitalisation within the original scope and upto cut-off date:**

26.1 The additional capital expenditure in respect of the new project or an existing project 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 the cut-off date may be admitted by the Commission, subject to prudence check:

- Un-discharged liabilities recognized to be payable at a future date;
- Works deferred for execution;



- iii. *Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 25 of these Regulations;*
- iv. *Liabilities to meet award of arbitration or for compliance of the directions or order of the any statutory authority or the order or decree of a court of law;*
- v. *Change in law or compliance of any existing law; and*
- vi. *Force Majeure events: Provided that in case of any replacement of the assets, the additional capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization.*

26.2 *The generating company shall submit the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution along with the application for determination of tariff.*

**27. Additional Capitalization within original scope and after the cut-off date:**

27.1 *The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:*

- i. *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- ii. *Change in law or compliance of any existing law:*
- iii. *Deferred works relating to ash pond or ash handling system including ash transportation facility in the original scope of work;*
- iv. *Liability for works executed prior to the cut-off date;*
- v. *Force majeure events;*
- vi. *Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payment; and*
- vii. *Additional capitalization on account of raising of ash dyke as a part of ash disposal system.*

27.2 In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these Regulations;
- (b) The replacement of the asset or equipment if necessary, on account of change in law or Force Majeure conditions;
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.

**28. Additional Capitalization beyond the original scope:**

28.1 The capital expenditure in respect of existing generating station incurred or projected to be incurred on the following counts beyond the original scope, may be admitted by the Commission, subject to prudence check:

- a. Liabilities to meet award of arbitration or for compliance of the order or directions of the any statutory authority, or order or decree of any court of law;
- b. Change in law or compliance of any existing law;
- c. Force Majeure Events;
- d. Any capital expenditure to be incurred on account of need for higher security<sup>37</sup> and safety of the plant as advised or directed by appropriate Government Agencies or statutory authorities responsible for national security/ internal security;
- e. Deferred works relating to ash pond or ash handling system in addition to the original scope of work, on case to case basis:  

Provided that if any expenditure has been claimed under Renovation and Modernisation (R&M) or repairs and maintenance under O&M expenses, the same expenditure cannot be claimed under this Regulation; and
- f. Usage of water from sewage treatment plant in thermal generating station.

*28.2 In case of de-capitalisation of assets of a generating company, the original cost of such asset as on the date of de- capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalised.*

32. Regarding the Additional Capitalization on account of Revised Emission Standards, Regulation 31 of the MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 provides as under:

*31.1 A generating company requiring to incur additional capital expenditure in the existing generating station for compliance of the revised emission standards shall share its proposal with the beneficiaries and file a petition before Commission for undertaking such additional capitalization.*

*31.2 The proposal under clause above shall contain details of proposed technology as specified by the Central Electricity Authority, scope of the work, phasing of expenditure, schedule of completion, estimated completion cost including foreign exchange component, if any, detailed computation of indicative impact on tariff to the beneficiaries, and any other information considered to be relevant by the generating company.*

*31.3 Where the generating company makes an application for approval of additional capital expenditure on account of implementation of revised emission standards, the Commission may grant approval after due consideration of the reasonableness of the cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, and such other factors as may be considered relevant by the Commission.*

*31.4 After completion of the implementation of revised emission standards, the generating company shall file a petition for determination of tariff. Any expenditure incurred or projected to be incurred and admitted by the Commission after prudence check based on reasonableness of the cost and impact on operational parameters shall form the basis of determination of tariff.*

### Commission's Analysis

33. On examination of additional capitalization claimed in the subject petition, the Commission observed that the petitioner has filed the estimated/proposed additional capitalization of Rs. 670.67 Crore for FY 2019-20, Rs 611.34 Crore for FY 2020-21, Rs 445.79 Crore for FY 2021-22, Rs 238.04 Crore for FY 2022-23 and Rs 32.82 Crore for FY 2023-24. In the subject MYT petition, the petitioner has filed the break-up of proposed additional capitalization in thermal and hydel power stations during the control period in two category namely statutory and essential. Details of the power station-wise and year-wise additional capitalization filed by the petitioner are as given below:

S. No.	Thermal Power Station	Category	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
1	ATPS PH-3	Statutory	0.00	5.09	1.00	0.00	0.00	6.09
		Essential	1.00	21.73	41.49	30.52	3.93	98.66
		<b>Total</b>	<b>1.00</b>	<b>26.81</b>	<b>42.49</b>	<b>30.52</b>	<b>3.93</b>	<b>104.75</b>
2	STPS PH-2&3	Total	0.00	0.00	0.00	0.00	0.00	0.00
3	STPS PH-4	Statutory	47.97	24.86	4.00	1.50	1.00	79.33
		Essential	13.49	45.38	7.71	0.30	0.00	66.87
		<b>Total</b>	<b>61.46</b>	<b>70.24</b>	<b>11.71</b>	<b>1.80</b>	<b>1.00</b>	<b>146.20</b>
4	SGTPS PH-1&2	Statutory	0.00	1.52	2.00	0.00	0.00	3.52
		Essential	2.89	9.58	6.30	1.69	0.27	20.73
		<b>Total</b>	<b>2.89</b>	<b>11.10</b>	<b>8.30</b>	<b>1.69</b>	<b>0.27</b>	<b>24.25</b>
5	SGTPS PH-3	Statutory	11.58	8.26	7.20	5.00	0.00	32.04
		Essential	0.50	37.24	11.20	8.35	0.00	57.30
		<b>Total</b>	<b>12.08</b>	<b>45.50</b>	<b>18.40</b>	<b>13.35</b>	<b>0.00</b>	<b>89.34</b>
6	SSTPP PH-1	Statutory	0.00	0.00	0.00	0.00	0.00	0.00
		Essential	2.72	59.99	0.20	0.12	0.21	63.24
		<b>Total</b>	<b>2.72</b>	<b>59.99</b>	<b>0.20</b>	<b>0.12</b>	<b>0.21</b>	<b>63.24</b>
7	SSTPP PH-2	Statutory	1.53	1.67	0.00	0.00	0.00	3.20
		Essential	580.87	283.07	162.12	119.64	0.20	1145.9
		<b>Total</b>	<b>582.40</b>	<b>284.74</b>	<b>162.12</b>	<b>119.64</b>	<b>0.20</b>	<b>1149.1</b>
8	Total Thermal	Statutory	61.08	41.40	14.20	6.50	1.00	124.17
		Essential	601.46	457.00	229.03	160.61	4.61	1452.7
		<b>Total</b>	<b>662.54</b>	<b>498.39</b>	<b>243.23</b>	<b>167.11</b>	<b>5.61</b>	<b>1576.8</b>

S. No.	Hydro Power Station	Category	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
1	<b>Gandhi Sagar</b>	Statutory	0.10	1.21	4.21	4.06	14.06	<b>23.64</b>
		Essential	0.04	25.05	156.25	32.50	0.60	<b>214.44</b>
		<b>Total</b>	<b>0.14</b>	<b>26.26</b>	<b>160.46</b>	<b>36.56</b>	<b>14.66</b>	<b>238.08</b>
2	<b>Pench</b>	Statutory	4.35	7.88	0.95	0.00	0.00	<b>13.18</b>
		Essential	0.37	0.37	7.60	4.57	7.50	<b>20.41</b>
		<b>Total</b>	<b>4.72</b>	<b>8.25</b>	<b>8.55</b>	<b>4.57</b>	<b>7.50</b>	<b>33.59</b>
3	<b>Rajghat</b>	Statutory	0.00	2.90	1.00	0.30	0.00	<b>4.20</b>
		Essential	0.13	1.10	0.30	0.20	0.00	<b>1.73</b>
		<b>Total</b>	<b>0.13</b>	<b>4.00</b>	<b>1.30</b>	<b>0.50</b>	<b>0.00</b>	<b>5.93</b>
4	<b>Bargi</b>	Statutory	0.00	5.58	0.00	6.07	0.70	<b>12.35</b>
		Essential	0.00	5.18	0.00	0.00	0.70	<b>5.88</b>
		<b>Total</b>	<b>0.00</b>	<b>10.76</b>	<b>0.00</b>	<b>6.07</b>	<b>1.40</b>	<b>18.23</b>
5	<b>Bansagar PH-1,2 &amp;3</b>	Statutory	0.67	4.21	2.93	0.87	0.00	<b>8.67</b>
		Essential	2.37	46.65	25.28	22.36	3.15	<b>99.80</b>
		<b>Total</b>	<b>3.04</b>	<b>50.85</b>	<b>28.20</b>	<b>23.23</b>	<b>3.15</b>	<b>108.47</b>
6	<b>Bansagar PH-4</b>	Statutory	0.10	0.74	0.00	0.00	0.00	<b>0.84</b>
		Essential	0.00	1.10	0.25	0.00	0.00	<b>1.35</b>
		<b>Total</b>	<b>0.10</b>	<b>1.84</b>	<b>0.25</b>	<b>0.00</b>	<b>0.00</b>	<b>2.19</b>
7	<b>Madhikheda</b>	Statutory	0.00	1.10	0.05	0.00	0.00	<b>1.15</b>
		Essential	0.00	7.28	0.58	0.00	0.00	<b>7.86</b>
		<b>Total</b>	<b>0.00</b>	<b>8.38</b>	<b>0.63</b>	<b>0.00</b>	<b>0.00</b>	<b>9.01</b>
8	<b>Birsinghpur</b>	Statutory	0.00	2.06	2.67	0.00	0.00	<b>4.73</b>
		Essential	0.00	0.55	0.50	0.00	0.50	<b>1.55</b>
		<b>Total</b>	<b>0.00</b>	<b>2.61</b>	<b>3.17</b>	<b>0.00</b>	<b>0.50</b>	<b>6.28</b>
9	<b>Total Hydel</b>	<b>Statutory</b>	<b>5.23</b>	<b>25.68</b>	<b>11.81</b>	<b>11.30</b>	<b>14.76</b>	<b>68.77</b>
		<b>Essential</b>	<b>2.90</b>	<b>87.28</b>	<b>190.76</b>	<b>59.63</b>	<b>12.45</b>	<b>353.02</b>
		<b>Total</b>	<b>8.14</b>	<b>112.95</b>	<b>202.56</b>	<b>70.93</b>	<b>27.21</b>	<b>421.79</b>

34. With regard to additional capitalization filed in the subject petition, vide Commission's letter dated 9<sup>th</sup> October' 2020, the petitioner was asked to file a comprehensive reply to the following issues with all relevant supporting documents:

- a. List of works/assets under additional capitalization along with corresponding amount and detailed reasons for addition of such assets

- b. The additional capitalization has been carried out after cut-off date in most of the power stations therefore, the petitioner was asked to explain the basis of claiming additional capitalization after cut-off date in terms of Regulation 3.1(14) of the MPERC (Terms and Conditions for Determination of Generation Tariff) Regulation, 2020.*
  - c. Whether the assets under additional capitalization claimed by the petitioner are under original scope of work. If so, all supporting documents establishing that the assets capitalized are under original scope of work be filed. The petitioner was also asked to explain that the addition of assets is on account of the reasons mentioned in Regulation 27.1 of the MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020.*
  - d. The petitioner was asked to furnish the information of additional capitalization like Asset Additions, Whether the assets added is under original scope of works, Detailed reasons of Asset Additions, Provision of Regulations under which Add. Cap. Filed and Reference of supporting doc. enclosed in the prescribed format.*
  - e. If the additional capitalized claimed is beyond the original scope of work, the petitioner was asked to explain that the addition of assets is on account of the reasons mentioned in Regulation 28.1 of the MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020.*
  - f. Details of funding of the proposed additional capitalization. Supporting documents like sanction of loan and approval of equity amount in this regard were asked to filed by the petitioner.*
  - g. Copy of Orders placed if any, placed for all the assets claimed under additional capitalization along with a statement indicating all such details of works/assets, amount, Order No. date etc. be also filed.*
35. In response to the above, by affidavit dated 30<sup>th</sup> December' 2020, the petitioner submitted the following:
- a. The Power station wise details of works/ assets, supporting justification, copies of orders (where orders placed), work progress, estimated/ order value*

etc, considered towards Projected additional Capitalization in the instant petition is annexed as and detailed in table below:-

<b>Name of Power House</b>	<b>Annexure No.</b>
ATPS PH 3	Annexure-2A
STPS PH-4	Annexure-2B
SGTPS PH 1&2	Annexure-2C
SGTPS PH 3	Annexure-2D
SSTPP PH-1	Annexure-2E
SSTPP PH-2	Annexure-2F
Gandhi Sagar HPS	Annexure-2G
Pench HPS	Annexure-2H
Rajghat HPS	Annexure-2I
Bargi HPS	Annexure-2J
Bansagar PH-1,2&3 HPS	Annexure-2K
Bansagar PH-4 HPS	Annexure-2L
Madhikhedha HPS	Annexure-2M
Birsinghpur HPS	Annexure-2N

b. The projected capitalization submitted in the instant petition may broadly be divided into two categories:

i. Works of Essential Nature :-

Capital expenditure under this head is incurred/ projected to be incurred on account of the following:

- The existing power stations & associated sub stations of MPPGCL are quite old. In order to maintain the stability and quality of supply as well as to comply with the latest norms and requirements of grid safety, it is essential to carry up gradation and strengthening works at sub stations/ Switch Yards.
- Further certain assets which are essential for efficient running of plant have completed their useful life and needs to be replaced with new assets.
- For smooth and Uninterrupted running of units and to ensure targeted availability of plant the works are essential to be carried out. The execution of these works is mandatory because down time of



plant on account of any of these works may cause huge loss to the utility.

ii. Works of Statutory Nature :

Capital expenditure under this head is incurred/ projected to be incurred on account of the following:

- Replacement of old technology as per statutory requirement under MPERC Grid Code for efficient running of plant.
- Works required complying with the latest norms and requirements of grid safety. This will enhance the reliability and optimized the outage of these equipments.
- Works required for enhancing safety and security of plant.
- Compliance to any other law in force.
- MPPGCL is a utility abided to comply with various Statutory Rules/ Acts/ laws notified from time to time and non-compliance of such statutory requirements attracts penal action. Therefore, works which are mandatory to ensure the compliance of legal/ statutory requirements are must and need to be carried out, even if they may not have cost benefits.

- c. Except for SSTPP PH -2 khandwa, whose cut-off date is 31.03.2022 as per MPERC Regulations 2015, all other major projected capital expenditure considered at various Thermal & Hydel Power stations areas Statutory/ Replacement/ Up-gradation/ essential items/works. The projected capitalization submitted in the instant petition may broadly be divided in to two categories as explained above

The power station-wise & year wise break up of Essential works and Statutory works is already submitted in the Chapter-15 – “Additional Capitalization & Funding there of” of MYT petition for FY 2019-20 to FY 2023-24.

The said projected capital expenditure is claimed under following clauses 27.2 & 28 of MPERC regulations 2020.

The projected additional capitalization pertaining to SSTPP PH-2 has been claimed under clause 26.1 & 27.1 of MPERC Regulations 2020. The details of Original scope of work have already been submitted before the

*Commission in the Petition submitted for determination of Final Generation tariff of SSTPP PH-2 Khandwa.*

- d. *The Power station wise details of works / assets, supporting justification , copies of orders (where orders placed), work progress, estimated/ order value etc, considered towards Projected additional Capitalization in the instant petition is annexed as per table below given in para a above.*

*Further, the relevant Clauses of MPERC Regulations 2020 under which the projected additional capitalization is claimed by MPPGCL is submitted under the reply to Point- 4 (a) above.*

- e. *Reply to this point is submitted under the reply to Point- 4 (a) & 4 (b) above. It is humbly requested to kindly consider the same.*
- f. *The power station wise & year wise details of proposed funding towards projected capital expenditure is already submitted in the Chapter-15 – additional Capitalization & Funding Thereof of MYT petition for FY 2019-20 to FY 2023-24. It is humbly requested to kindly consider the same.*
- g. *The desired major order copies/details are incorporated in Annexures indicated in table of para (a) above.*
36. On perusal of the details and documents filed by the petitioner, the Commission observed that the reply filed by the petitioner regarding the provisional/proposed additional capitalization during the control period of FY 2019-20 to FY 2023-24 requires detailed examination on several counts specified in the MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 as well as due reconciliation with the Annual Audited Accounts of the respective years.
37. With regard to truing-up exercise, Regulation 9.4 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 provides that:
- “A generating company shall file a petition at the beginning of the Tariff period. A review shall be undertaken by the Commission to scrutinize and true up the Tariff on the basis of the capital expenditure and additional capital expenditure actually incurred in the Year for which the true up is being requested. The generating company shall submit for the purpose of truing up,*

*details of capital expenditure and additional capital expenditure incurred for the period from 1.4.2019 to 31.3.2024, duly audited and certified by the auditors.”*

38. In view of the above, the projected additional capitalization filed by the petitioner during the control period is required to be examined on several counts provided under Regulations 2020. Based on the actual details and documents in light of aforesaid Regulations to be made available by the petitioner, this exercise shall be carried out while undertaking true-up exercise for the respective year based on Annual Audited Accounts and other requisite details in this regard. The petitioner shall be at liberty to approach the Commission for approval of additional capitalization at the appropriate stage based on the actual expenditure incurred duly reconciled with the figures recorded in Annual Audited Accounts of respective year.
39. Accordingly, the opening Gross Fixed Assets (GFA) of all power stations (except SSTPP PH-2) as on 1<sup>st</sup> April' 2019 will remain same in this order as considered by the Commission as on 31<sup>st</sup> March' 2019 in last true up order for FY 2018-19 (in Petition No 2 of 2020) issued on 29<sup>th</sup> April' 2021. The same shall remain unchanged during the control period in this order. For power station SSTPP PH-2, the opening Gross Fixed Assets as on 1<sup>st</sup> April' 2019 will remain same in this order as considered by the Commission as on 31<sup>st</sup> March' 2019 in final generation tariff order of SSTPP PH-2 issued in petition No. 25 of 2020.

### **Debt-Equity ratio and Funding Status**

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

#### **Equity balances as on 1<sup>st</sup> April' 2019**

40. The petitioner worked out the power station-wise equity balances as on 1<sup>st</sup> April' 2019 on the following basis:
- a) *It has considered the closing equity balance as on 31<sup>st</sup> March' 2019 for all power stations as filed in the true up petition (Petition No 02 of 2020) for FY 2018-19 as opening equity balance as on 1<sup>st</sup> April' 2019 except SSTPP PH 2.*
  - b) *For SSTPP PH-2, as on 1<sup>st</sup> April' 2019, petitioner has considered closing equity balance as on 31<sup>st</sup> March' 2019 filed in the final tariff petition for FY 2018-19 (Petition No 25 of 2020).*

For the control period of FY 2019-20 to FY 2023-24, equity additions have been considered corresponding to proposed fixed assets additions during FY 2019-20 to FY 2023-24.

41. The petitioner has filed the equity balance as on 1<sup>st</sup> April' 2019, additional equity during the control period for FY 2019-20 to FY 2023-24 and closing equity balance as on 31<sup>st</sup> March' 2024 as given below:

**Table 8: Opening, Additions and Closing Equity Balance Filed (Rs in Crores)**

Sr. No	Power Station	Opening Balance as on 01.04.2019	Equity Additions					Closing Balance as on 31.03.2024
			FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	
1	ATPS PH-3	260.21	0.20	5.36	8.50	6.10	0.79	281.16
2	STPS PH-2&3	179.28	0.00	0.00	0.00	0.00	0.00	179.28
3	STPS PH-4	649.03	12.29	14.05	2.34	0.36	0.20	678.27
4	SGTPS PH-1&2	658.01	0.87	3.33	2.49	0.51	0.08	665.29
5	SGTPS PH-3	585.80	2.42	9.10	3.68	2.67	0.00	603.67
6	SSTPP PH-1	1418.57	0.54	12.00	0.04	0.02	0.04	1431.21
7	SSTPP PH-2	1080.40	116.48	56.95	32.42	23.93	0.04	1310.22
	<b>Total Thermal</b>	<b>4831.29</b>	<b>132.8</b>	<b>100.79</b>	<b>49.48</b>	<b>33.59</b>	<b>1.15</b>	<b>5149.10</b>
8	Gandhi Sagar	3.38	0.03	5.25	32.09	7.31	2.93	50.99
9	Pench	31.05	0.94	1.65	1.71	0.91	1.50	37.76
10	Rajghat	27.09	0.04	1.20	0.39	0.15	0.00	28.87
11	Bargi	26.57	0.00	3.23	0.00	1.82	0.42	32.04
12	Bansagar 1,2&3	353.21	0.61	10.17	5.64	4.65	0.63	374.91
13	Bansagar PH-4	35.05	0.03	0.55	0.08	0.00	0.00	35.71
14	Madhikheda	46.26	0.00	2.51	0.19	0.00	0.00	48.96
15	Birsinghpur	15.65	0.00	0.78	0.95	0.00	0.15	17.53
	<b>Total Hydro</b>	<b>538.26</b>	<b>1.65</b>	<b>25.35</b>	<b>41.05</b>	<b>14.84</b>	<b>5.63</b>	<b>626.77</b>
	<b>Total</b>	<b>5369.55</b>	<b>134.45</b>	<b>126.14</b>	<b>90.53</b>	<b>48.43</b>	<b>6.78</b>	<b>5775.87</b>

#### **Loan Balances as on 1<sup>st</sup> April' 2019**

42. The petitioner worked out the power station-wise loan balances as on 1<sup>st</sup> April' 2019, on the following basis:
- a) It has considered the loan balance as on 31<sup>st</sup> March' 2019 for all power stations (except SSTPP PH-II) as filed in the true up petition (Petition No 02

of 2020) for FY 2018-19 as opening loan balance as on 1<sup>st</sup> April' 2019 except SSTPP PH 2.

b) For SSTPP PH-2, loan balance as on 31<sup>st</sup> March' 2019 filed in Final Tariff Petition for SSTPP Stage-II (Petition No 25 of 2020) have been considered as opening loan balance as on 1<sup>st</sup> April' 2019.

c) For the control period of FY 2019-20 to FY 2023-24, loan additions have been considered corresponding to proposed fixed assets additions during FY 2019-20 to FY 2023-24. Repayments have been considered equivalent to depreciation.

43. The petitioner has filed the opening balance of loan as on 1<sup>st</sup> April' 2019, loan additions and repayment during the control period of FY 2019-20 to FY 2023-24 as given below:

**Table 9: Opening, Addition, Repayment and Closing Balance of Loan as filed (Rs in Crores)**

Power Station	Opening Balance as on 01.04. 19	Loan Additions					Repayment					Closing Balance as on 31.03.24
		FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23- 24	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23- 24	
ATPS PH-3	360.05	0.80	21.45	33.99	24.41	3.15	51.36	52.28	35.11	37.16	37.89	230.06
STPS PH-2&3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STPS PH-4	1764.62	49.17	56.19	9.37	1.44	0.80	168.26	171.56	173.65	174.01	174.08	1020.03
SGTPS PH-1&2	0.00	2.02	7.77	5.81	1.18	0.19	2.02	7.77	5.81	1.18	0.19	0.00
SGTPS PH-3	433.66	9.67	36.40	14.72	10.68	0.00	104.80	57.42	58.58	59.33	59.51	165.49
SSTPP PH-1	4227.19	2.17	48.00	0.16	0.10	0.17	369.42	370.99	372.52	372.53	372.53	2419.79
SSTPP PH-2	4816.49	465.92	227.8	129.70	95.71	0.16	365.92	389.01	400.80	408.24	411.40	3760.39
<b>Total Thermal</b>	<b>11602</b>	<b>529.75</b>	<b>397.6</b>	<b>193.75</b>	<b>133.52</b>	<b>4.47</b>	<b>1061.8</b>	<b>1049.0</b>	<b>1046.4</b>	<b>1052.4</b>	<b>1055.6</b>	<b>7595.76</b>
Gandhi Sagar	0.46	0.11	21.01	128.37	29.25	11.73	0.07	0.93	5.89	10.90	12.23	160.91
Pench	0.00	3.78	6.60	6.84	3.66	6.00	1.02	1.33	1.76	2.03	2.39	18.34
Rajghat	0.00	0.09	2.80	0.91	0.35	0.00	0.09	1.95	1.76	0.35	0.00	0.00
Bargi	0.00	0.00	7.53	0.00	4.25	0.98	0.00	1.62	1.72	1.98	2.10	5.35
Bansagar PH-1,2&3	0.00	2.43	40.68	22.56	18.58	2.52	2.43	20.52	22.19	23.46	18.18	0.00
Bansagar PH-4	0.70	0.07	1.29	0.18	0.00	0.00	0.77	1.03	0.43	0.00	0.00	0.00
Birsinghpur	0.00	0.00	1.83	2.22	0.00	0.35	0.00	0.69	0.85	0.88	0.90	1.07
Madhikheda	23.23	0.00	5.87	0.44	0.00	0.00	2.71	3.09	3.17	3.18	3.18	14.20
<b>Total Hydro</b>	<b>24.38</b>	<b>6.48</b>	<b>87.61</b>	<b>161.52</b>	<b>56.09</b>	<b>21.58</b>	<b>7.08</b>	<b>31.17</b>	<b>37.78</b>	<b>42.77</b>	<b>38.98</b>	<b>199.87</b>
<b>Total</b>	<b>11626.3</b>	<b>536.23</b>	<b>485.2</b>	<b>355.27</b>	<b>189.61</b>	<b>26.05</b>	<b>1068.8</b>	<b>1080.2</b>	<b>1084.2</b>	<b>1095.2</b>	<b>1094.5</b>	<b>7795.63</b>

## Provisions in Regulation:

44. With regard to funding of the project, Regulation 33 of MPERC (Terms & Conditions for Determination of Generation Tariff), Regulations, 2020 provides that:

### **33 Debt-Equity Ratio:**

*33.1 For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. 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.*

- 33.2 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.*
- 33.3 In case of the generating station declared under commercial operation prior to 1.4.2019, debt- equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:*

*Provided that in case of a generating station which has completed its useful life as on or after 01.04.2019, if the equity actually deployed as on 01.04.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff determination.*

- 33.4 *In case of the generating station declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt : equity in accordance with Regulation 33.1 of these Regulations.*
- 33.5 *Any expenditure incurred or projected to be incurred on or after 1.4.2019 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 33.1 of this Regulation.*

### **Commission's Analysis**

#### **Equity and Loan as on 1<sup>st</sup> April 2019**

45. Regulation 33.3 of MPERC Tariff Regulations' 2020 provides that "in case of generating station declared under Commercial Operation prior to 1<sup>st</sup> April' 2019, the debt equity ratio allowed by the Commission for determination of tariff for the period ending 31<sup>st</sup> March' 2019 shall be considered". Therefore, the Commission has considered the same opening equity and opening loan of power stations (except SSTPP PH-2) as on 01<sup>st</sup> April' 2019 as the closing loan and equity admitted in last true-up order for FY 2018-19 issued on 29<sup>th</sup> April' 2021 in Petition No 02 of 2020. For SSTPP PH-2, the Commission has considered the opening equity and opening loan as on 01<sup>st</sup> April' 2019 as the closing loan and equity as on 31.03.2019 admitted in final tariff order for SSTPP PH-2 in Petition No 25 of 2020.
46. As mentioned in preceding part of this order, the Commission has not considered the proposed/projected additional capitalization during FY 2019-20 to FY 2023-24 filed by the petitioner at this stage in this order and the same shall be dealt with at the time of true-up exercise of the respective years based on the Annual Audited Accounts. Therefore, no addition of loan and equity is considered during



the MYT control period.

47. Based on the above, the power station-wise opening equity and loan as on 1<sup>st</sup> April' 2019 considered in this order is as given below:

**Table 10: Equity and Loan as on 01<sup>st</sup> April' 2019 considered (Rs in Crores)**

Sr. No.	Power Station	Opening Equity as on 01 <sup>st</sup> April' 2019 Considered in this order	Opening Loan as on 01 <sup>st</sup> April' 2019 considered in this order
1	ATPS PH-3	256.63	351.97
2	STPS PH-2 & 3	179.29	-
3	STPS PH-4	645.28	1756.17
4	SGTPS PH 1 &2	655.09	-
5	SGTPS PH-3	579.85	420.25
6	SSTPP PH-1	1411.54	4211.38
7	SSTPP PH-2	966.79	5306.55
8	Gandhi Sagar	3.38	0.46
9	Pench	31.04	-
10	Rajghat	26.94	-
11	Bargi	26.56	-
12	Bansagar PH-1,2 &3	353.15	-
13	Bansagar PH-4	35.05	0.70
14	Birsinghpur	15.65	-
15	Madhikheda	46.26	23.23
	<b>Total</b>	<b>5,232.50</b>	<b>12,070.71</b>

**Cumulative depreciation as on 1<sup>st</sup> April, 2019:**

48. The Commission has considered the power station-wise closing cumulative depreciation (except SSTPP PH-2) as on 31<sup>st</sup> March' 2019 admitted in last true-up order for FY 2018-19 issued on 29<sup>th</sup> April' 2021 in Petition No 02 of 2020, as opening cumulative depreciation as on 1<sup>st</sup> April' 2019.
49. For SSTPP PH-2, the Commission has considered the closing cumulative depreciation as on 31.03.2019 as admitted in final tariff order for SSTPP PH-2 in Petition No 25 of 2020 as opening cumulative depreciation as on 1<sup>st</sup> April' 2019.
50. In view of the above, the details of power station-wise opening cumulative depreciation as on 1<sup>st</sup> April' 2019 considered in this order are as given below:

Table 11: Cumulative Depreciation as on 1<sup>st</sup> April' 2019

(Rs in Crores)

Sr. No.	Power Station	Opening Cumulative Depreciation as on 1 <sup>st</sup> April' 2019 considered in this order
1	ATPS PH-3	508.21
2	STPS PH-2 & 3	549.61
3	STPS PH-4	841.98
4	SGTPS PH 1 & 2	1757.29
5	SGTPS PH-3	1048.78
6	SSTPP PH-1	1687.14
7	SSTPP PH-2	62.86
8	Gandhi Sagar	9.46
9	Pench	84.40
10	Rajghat	61.59
11	Bargi	70.44
12	Bansagar PH-1,2 & 3	840.44
13	Bansagar PH-4	81.11
14	Birsinghpur	40.88
15	Madhikheda	123.10
	<b>Total</b>	<b>7767.30</b>

**Annual Capacity (fixed) Charges**

51. Regulation 17.1 of the MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020, stated that the Annual Capacity Charges shall derived on the basis of annual fixed cost (AFC) of a generating station and shall consist of the following components:

- (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**

52. With regard to return on equity, the petitioner broadly submitted the following:

*The Commission vide proviso 34.2 of "MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020" has specified the principles of calculating Return on Equity, reproduced hereunder:-*

*"Return on equity shall be computed at the base rate of 15.50% for thermal generating stations and hydro generating stations and at the base rate of 16.50% for the pumped storage hydro generating stations and run-of river generating stations with pondage: ..."*

*It may please be recalled that as per the Appendix-I "Time line for completion of Project" of Regulation, 2015, the completion time schedule shall be reckoned from the date of investment approval by the Board (of the Generating Company), up to the Date of Commercial Operation of the Units or Block of Unit size 660/800 MW is 50 months for Extension Projects and Subsequent Units at an interval of 6 months each.*

*The Unit No. 3 of SSTPP PH-2, Khandwa has started Commercial operation in 47 months and Unit No. 4 of SSTPP PH-2, Khandwa has started Commercial operation in 51 months from Zero Date. Accordingly, MPPGCL is entitled to avail the additional Return in Equity of 0.5% as per proviso 30 read with Appendix-I of the Regulations, 2015. Therefore, Return on Equity for SSTPP PH-2 has been considered as 16.00%*

*MPPGCL has filed the petition for True up of generation tariff of Power Stations of MPPGCL for FY 2018-19 on 30.12.2019 and Final Tariff Petition for SSTPP Stage-II on 24.02.2020, which is under process at Hon'ble Commission and the orders on which are awaited.*

*Taking above into account, the Normative Equity Opening balance, addition & Closing balance as considered for the stations covered under true up petition for FY 2018-19 and as considered in Final tariff Petition of SSTPP stage-II are in the petition:*

The Commission vide proviso 33.1 of "MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020 {RG-26 (IV) of 2020}" has specified the Debt to Equity ratio for calculating Return on Equity, reproduced hereunder:-

“....the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan...”

MPPGCL has claimed projected asset addition in the instant petition in the control period FY 2019-20 to FY 2023-24. The year wise Power Station wise details of asset additions and its funding through Loan / Equity along with eligible Normative Equity & Normative Loan are detailed in the Chapter 15 – Additional Capitalization and funding thereof.

The Return on equity of Assets at HQ has been linked to nearest Power Station i.e. Bargi HPS for simplicity.

53. Considering Opening Normative Equity Balance and Normative Equity Addition due to Projected Asset addition, the year wise Return on Equity for the control period FY 2019-20 to FY 2023-24 are worked out by the petitioner are as given below:

**Table 12: Return on Equity Filed (Rs in Crores)**

Power Station		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	ATPS PH-3	40.35	40.78	41.85	42.98	43.52
2	STPS PH-2&3	27.79	27.79	27.79	27.79	27.79
3	STPS PH-4	101.55	103.59	104.86	105.07	105.12
4	SGTPS PH-1&2	102.06	102.38	102.84	103.07	103.11
5	SGTPS PH-3	90.99	91.88	92.87	93.36	93.57
6	SSTPP PH-1	219.92	220.89	221.83	221.83	221.84
7	SSTPP PH-2	182.18	196.06	203.21	207.71	209.63
<b>8</b>	<b>Total Thermal</b>	<b>764.84</b>	<b>783.37</b>	<b>795.24</b>	<b>801.82</b>	<b>804.57</b>
9	Gandhi Sagar	0.56	1.00	4.08	7.33	8.17
10	Pench	5.20	5.41	5.69	5.91	6.11
11	Rajghat	4.47	4.58	4.71	4.75	4.76

12	Bargi	4.63	4.90	5.16	5.31	5.50
13	Bansagar PH-1,2 &3	58.33	59.22	60.52	61.37	61.81
14	Bansagar PH-4	5.79	5.83	5.89	5.89	5.89
15	Madhikheda	7.63	7.84	8.06	8.08	8.08
16	Birsinghpur	2.58	2.65	2.79	2.87	2.88
17	<b>Total Hydro</b>	<b>89.19</b>	<b>91.42</b>	<b>96.90</b>	<b>101.51</b>	<b>103.20</b>
<b>Total</b>		<b>854.03</b>	<b>874.79</b>	<b>892.14</b>	<b>903.33</b>	<b>907.77</b>

### Provisions in the Regulation:

54. With regard to Return on Equity, Regulation 34 (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 provides that,

*“34.1 Return on equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 33 of these Regulations.*

*34.2 Return on equity shall be computed at the base rate of 15.50% for thermal generating stations and hydro generating stations and at the base rate of 16.50% for the pumped storage hydro generating stations and run-of river generating stations with pondage.*

*Provided that*

*(a) in case of a new project, the rate of return of a new project shall be reduced by 1.00% 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):*

*(b) in case of existing generating station any of the above requirements are found lacking based on the report submitted by the respective SLDC/RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues.*

*(c) in case of a thermal generating station, with effect from 1.04.2020:*

*(a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute:*

*(b) an additional rate of return on equity of 0.25% shall be allowed for*

*every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:*

*Provided that the detailed guidelines in this regard shall be issued by National Load Despatch Centre)*

55. Regarding Tax on Return on Equity, Regulation 35 of the MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 further provides that:

35. *Tax on Return on Equity:*

35.1 *The base rate of return on equity as allowed by the Commission under Regulation 34 shall be grossed up with the effective tax rate of the respective financial year. 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 liability (i.e., income from non-generation business) shall be excluded for the calculation of “effective tax rate”.*

35.2 *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 35.1 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:*

$$\text{Rate of return on equity} = 15.50 / (1 - 0.2096) = 19.61\%$$

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

(a) Estimated Gross Income from generation business for FY 2019-20 is Rs 1000 Crore.

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

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore / Rs 1000 Crore = 24%

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

35.3 The generating company shall true-up the grossed up rate of return on equity at the end of every financial year based on 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 2019-20 to 2023-24 on actual gross income of any financial 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

56. Regulation 33.3 of the Regulations, 2020 provides that, in case of the generating station declared under commercial operation prior to 1.4.2019, debt- equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered. In accordance with the aforesaid Regulation, the Commission has worked out the power station-wise equity balances as on 1<sup>st</sup> April' 2019 considering the following approach:

- a) Equity balances as on 31<sup>st</sup> March' 2019 admitted by the Commission in last true-up order for FY 2018-19 issued on 29<sup>th</sup> April' 2021 for all power stations (except SSTPP PH -2) are considered as the base opening equity as on 1<sup>st</sup> April' 2019.
- b) For SSTPP PH 2, Equity balance as on 31<sup>st</sup> March' 2019 admitted by the Commission in final generation tariff order (issued in P- No. 25/2020) for



SSTPP PH-2 has been considered as opening Equity as on 1<sup>st</sup> April' 2019.

57. Further, the Commission has not considered the proposed/projected additional capitalization during the control period and its corresponding equity in this order. Therefore, the equity balance as on 01<sup>st</sup> April' 2019 shall remain unchanged during the control period for all the power stations.
58. In compliance to Regulation 34.2 of the Regulations, 2020, the petitioner submitted that the generating stations of MPPGCL having installed capacity above 25 MW have commissioned RGMO/FGMO. The petitioner further submitted that the all the thermal generating stations of MPPGCL are achieving minimum ramp rate of 1% per minute in light of the provisions under the Regulations. The petitioner has also filed the Certificate of State Load Despatch Centre, certifying the above compliance with the additional submission.
59. In SSTPP PH-II, the petitioner has claimed rate of return on equity @16.00% (considering 0.5% additional equity towards early commissioning) with the following submission:

*“The Unit No. 3 of SSTPP PH-2, Khandwa has started Commercial operation in 47 months and Unit No. 4 of SSTPP PH-2, Khandwa has started Commercial operation in 51 months from Zero Date. Accordingly, MPPGCL is entitled to avail the additional Return in Equity of 0.5% as per proviso 30 read with Appendix-I of the Regulations, 2015. Therefore, Return on Equity for SSTPP PH-2 has been considered as 16.00%.”*

In the final tariff order for SSTPP PH-II issued in petition No. 25 of 2020, the Commission had not considered the claim of the petitioner towards additional rate of return on equity.

60. In view of the above, the additional rate of return on equity in SSTPP PH-II claimed of the petitioner is not considered in this order and the Commission has considered the base rate of return i.e.15.50% for thermal power stations and 16.50% for hydel power stations in accordance with the Regulations.
61. Accordingly, Return on Equity has been worked out for the control period FY 2019-20 to FY 2023-24 considering the base rate of return as given below:

Table 13: Return on Equity allowed

(Rs in Crores)

S. No	Power Station	Opening Equity as on 01.04.2019	Return on Equity				
			FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	ATPS PH-3	256.63	39.78	39.78	39.78	39.78	39.78
2	STPS PH-2&3	179.29	27.79	27.79	27.79	27.79	27.79
3	STPS PH-4	645.28	100.02	100.02	100.02	100.02	100.02
4	SGTPS PH-1&2	655.09	101.54	101.54	101.54	101.54	101.54
5	SGTPS PH-3	579.85	89.88	89.88	89.88	89.88	89.88
6	SSTPP PH-1	1411.54	218.79	218.79	218.79	218.79	218.79
7	SSTPP PH-2	966.79	149.85	149.85	149.85	149.85	149.85
	<b>Total Thermal</b>	<b>4694.47</b>	<b>727.64</b>	<b>727.64</b>	<b>727.64</b>	<b>727.64</b>	<b>727.64</b>
8	Gandhi Sagar	3.38	0.56	0.56	0.56	0.56	0.56
9	Pench	31.04	5.12	5.12	5.12	5.12	5.12
10	Rajghat	26.94	4.45	4.45	4.45	4.45	4.45
11	Bargi	26.56	4.38	4.38	4.38	4.38	4.38
12	Bansagar 1,2&3	353.15	58.27	58.27	58.27	58.27	58.27
13	Bansagar PH-4	35.05	5.78	5.78	5.78	5.78	5.78
14	Birsinghpur	15.65	2.58	2.58	2.58	2.58	2.58
15	Madhikheda	46.26	7.63	7.63	7.63	7.63	7.63
	<b>Total Hydro</b>	<b>538.03</b>	<b>88.77</b>	<b>88.77</b>	<b>88.77</b>	<b>88.77</b>	<b>88.77</b>
	<b>Total</b>	<b>5232.50</b>	<b>816.42</b>	<b>816.42</b>	<b>816.42</b>	<b>816.42</b>	<b>816.42</b>

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

62. The petitioner has claimed the year wise Interest on Loan Capital for the control period FY 2019-20 to FY 2023-24 considering the following power station-wise weighted average rate of interest:

Table 14: Weighted Average Rate of Interest Filed

Power Stations		%Wt. Average Rate of Interest filed for FY 2019-20 to FY 2023-24
1	ATPS PH-3	11.05%
2	STPS PH-2&3	14.02%
3	STPS PH-4	10.76%
4	SGTPS PH 1&2	12.69%
5	SGTPS PH 3	14.02%
6	SSTTP PH-1	10.75%

Power Stations		%Wt. Average Rate of Interest filed for FY 2019-20 to FY 2023-24
7	SSTTP PH-2	10.83%
8	<b>Total Thermal</b>	<b>10.80%</b>
9	Gandhi Sagar	14.02%
10	Pench	14.02%
11	Rajghat	14.02%
12	Bargi	14.02%
13	Bansagar PH-1,2&3	14.02%
14	Bansagar PH-4	14.02%
17	Madhikheda	14.02%
18	Birsinghpur	14.02%
19	<b>Total Hydro</b>	<b>14.02%</b>
<b>Total</b>		<b>10.81%</b>

63. Accordingly, the Power Station wise Interest on loan including interest on excess Equity is claimed in the subject petition for FY 2019-20 to FY 2023-24 as under:

**Table 15: Interest on Loan Capital including Excess Equity filed (Rs in Crores)**

Stations		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	ATPS PH-3	36.98	32.49	30.72	29.96	27.34
2	STPS PH-2&3	0.00	0.00	0.00	0.00	0.00
3	STPS PH-4	183.42	170.81	155.77	137.65	119.05
4	SGTPS PH-1&2	0.00	0.00	0.00	0.00	0.00
5	SGTPS PH-3	54.13	45.99	41.44	34.95	27.37
6	SSTPP PH-1	434.83	397.71	360.32	320.28	280.23
7	SSTPP PH-2	527.23	523.91	500.49	468.88	429.67
8	<b>Total Thermal</b>	<b>1236.59</b>	<b>1170.91</b>	<b>1088.75</b>	<b>991.72</b>	<b>883.66</b>
9	Gandhi Sagar	0.07	1.48	11.47	21.34	22.59
10	Pench	0.19	0.76	1.48	1.95	2.32
11	Rajghat	0.00	0.06	0.06	0.00	0.00
12	Bargi	0.46	0.84	1.09	1.10	1.14
13	Bansagar 1,2 &3	0.00	1.41	2.85	2.54	1.10
14	Bansagar PH-4	0.05	0.02	0.02	0.00	0.00
15	Madhikheda	3.07	3.07	3.075	2.660	2.21
16	Birsinghpur	0.00	0.08	0.25	0.29	0.19
17	<b>Total Hydel</b>	<b>3.84</b>	<b>7.71</b>	<b>20.31</b>	<b>29.88</b>	<b>29.55</b>
<b>Total</b>		<b>1240.43</b>	<b>1178.63</b>	<b>1109.06</b>	<b>1021.60</b>	<b>913.22</b>

## Provisions in Regulation

64. With regards to interest and finance charges, Regulation 36 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020, provides that,

*“36.1 The loans arrived at in the manner indicated in Regulation 33 of these Regulations shall be considered as gross normative loan for calculation of interest on loan.*

*36.2 The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan. The repayment for each of the year of the tariff period 2019-24 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-capitalization of such asset.*

*36.3 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 depreciation allowed for the year or part of the year.*

*36.4 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing 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.*

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

**Commission's analysis:**

65. Regulation 36.2 of the Regulations, 2020 provides that the normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.
66. In accordance with the aforesaid Regulation, the Commission has worked out the power station-wise loan balances as on 1<sup>st</sup> April' 2019 considering the following approach:
- a) Loan balances as on 31<sup>st</sup> March' 2019 admitted by the Commission in last true-up order for FY 2018-19 issued on 29<sup>th</sup> April' 2021 for all power stations (except SSTPP PH-II) covered under aforesaid true-up order are considered as the base opening loan balances as on 01<sup>st</sup> April' 2019.
  - b) For SSTPP PH 2, loan balance as admitted by the Commission in final tariff order of SSTPP PH-2 (in petition No. 25 of 2020) as on 31<sup>st</sup> March' 2019 is considered as opening loan balance as on 1<sup>st</sup> April' 2019.
  - c) Further, the Commission has not considered the proposed/projected additional capitalization during the control period in this order. Therefore, the loan balances for each financial year is worked out accordingly by considering the normative repayment equivalent to depreciation for the respective year.
67. On perusal of the details of weighted average rate of interest worked out in Form TPS 13 of the petition, it was observed that the rate of interest in SGTPS PH-3 is on higher side as compared to past period i.e. FY 2018-19. Therefore, vide Commission's letter dated 9<sup>th</sup> October' 2020, the petitioner was asked to explain the reasons for higher rate of interest in aforesaid power station. The petitioner was also asked to file the calculation sheet in excel along with supporting documents of all lending agencies in respect of actual weighted average rate of interest claimed in the petition.
68. In response to above, vide affidavit dated 30<sup>th</sup> December' 2020, the petitioner submitted the following :

*In regard to Weighted average Rate of Interest, Clause 36.4 of MPERC*

*Regulations 2020 provides as under:-*

*“36.4 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:”*

*Based on above, MPPCGL has considered the Power station wise actual Loan Balance & rate of interest of PFC & GoMP Loan as on 31.03.2019 as per Loan schedules of Audited Financial Statements for FY 2018-19. The copy of relevant schedules of Audited Financial Statements for FY 2018-19 is annexed as Annexure-4.*

*Further, as desired by Commission the Power Station wise calculation sheet of Weighted Average Rate of Interest is annexed as Annexure-5.*

*In regards to difference in Power Station wise Wt. Av. Rate of Interest between as submitted in True Up petition for FY 2018-19 and submitted in the instant petition, it is to submit that while calculating the Wt. Av. Rate of Interest for FY 2018-19, the actual Loan Balance as on 01.04.2018 have been considered and while calculating the Wt. Av. Rate of Interest for FY 2019-20 onwards, actual Loan Balance as on 01.04.2019 have been considered. Due to change in Loan balances on account of actual draws / repayment, the Power Station wise Wt. rate of Interest is appearing different.*

69. On perusal of the above submission, the Commission observed that the petitioner has submitted that while calculating the weighted average rate of interest for FY 2019-20, the actual loan balance as on 01.04.2019 have been considered. However, due to change in loan balances on account of actual draws / repayment, the Power Station wise weighted average rate of Interest is appearing different. The Commission has considered the weighted average rate of interest same as worked out and filed by the petitioner based on the actual loan portfolio. However, the petitioner is directed to file actual weighted average rate of interest in the true up petitions for respective year of the control period.
70. Based on the above, the power station-wise interest on loan as worked out during the control period (considering the repayment equal to depreciation) is as given below:

**Table 16: Power Station-wise Interest on Loan Allowed  
ATPS PH-III**

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Loan balance	Rs. Cr	351.97	301.18	250.39	199.60	172.57
Repayment during the Year	Rs. Cr	50.79	50.79	50.79	27.03	27.03
Closing balance of Loan	Rs. Cr	301.18	250.39	199.60	172.57	145.54
<b>Average Loan for the Year</b>	<b>Rs. Cr</b>	<b>326.58</b>	<b>275.79</b>	<b>225.00</b>	<b>186.09</b>	<b>159.06</b>
Wt. Average Rate of Interest	%	11.05%	11.05%	11.05%	11.05%	11.05%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>36.08</b>	<b>30.47</b>	<b>24.86</b>	<b>20.56</b>	<b>17.57</b>

**STPS PH-IV**

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Loan balance	Rs. Cr	1756.17	1590.24	1424.31	1258.38	1092.45
Repayment during the Year	Rs. Cr	165.93	165.93	165.93	165.93	165.93
Closing balance of Loan	Rs. Cr	1590.24	1424.31	1258.38	1092.45	926.52
<b>Average Loan for the Year</b>	<b>Rs. Cr</b>	<b>1673.21</b>	<b>1507.28</b>	<b>1341.35</b>	<b>1175.42</b>	<b>1009.49</b>
Wt. Average Rate of Interest	%	10.76%	10.76%	10.76%	10.76%	10.76%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>180.00</b>	<b>162.15</b>	<b>144.30</b>	<b>126.45</b>	<b>108.60</b>

**SGTPS PH-III**

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Loan balance	Rs. Cr	420.25	316.72	213.19	167.73	122.27
Repayment during the Year	Rs. Cr	103.53	103.53	45.46	45.46	45.46
Closing balance of Loan	Rs. Cr	316.72	213.19	167.73	122.27	76.81
<b>Average Loan for the Year</b>	<b>Rs. Cr</b>	<b>368.49</b>	<b>264.96</b>	<b>190.46</b>	<b>145.00</b>	<b>99.54</b>
Wt. Average Rate of Interest	%	14.02%	14.02%	14.02%	14.02%	14.02%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>51.66</b>	<b>37.15</b>	<b>26.70</b>	<b>20.33</b>	<b>13.96</b>

**SSTPP PH-1**

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Loan balance	Rs. Cr	4211.38	3843.16	3474.94	3106.72	2738.50
Repayment during the Year	Rs. Cr	368.22	368.22	368.22	368.22	368.22



Closing balance of Loan	Rs. Cr	3843.16	3474.94	3106.72	2738.50	2370.28
Average Loan for the Year	Rs. Cr	4027.27	3659.05	3290.83	2922.61	2554.39
Wt. Average Rate of Interest	%	10.75%	10.75%	10.75%	10.75%	10.75%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>433.07</b>	<b>393.48</b>	<b>353.88</b>	<b>314.28</b>	<b>274.69</b>

**SSTPP PH-2**

<b>Particulars</b>	<b>Unit</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Opening Loan balance	Rs. Cr	5306.55	4974.53	4642.51	4310.49	3978.47
Repayment during the Year	Rs. Cr	332.02	332.02	332.02	332.02	332.02
Closing balance of Loan	Rs. Cr	4974.53	4642.51	4310.49	3978.47	3646.45
Average Loan for the Year	Rs. Cr	5140.54	4808.52	4476.50	4144.48	3812.46
Wt. Average Rate of Interest	%	10.83%	10.83%	10.83%	10.83%	10.83%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>556.92</b>	<b>520.95</b>	<b>484.98</b>	<b>449.01</b>	<b>413.04</b>

**Gandhisagar**

<b>Particulars</b>	<b>Unit</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Opening Loan balance	Rs. Cr	0.46	0.42	0.38	0.34	0.30
Repayment during the Year	Rs. Cr	0.04	0.04	0.04	0.04	0.04
Closing balance of Loan	Rs. Cr	0.42	0.38	0.34	0.30	0.26
Average Loan for the Year	Rs. Cr	0.44	0.40	0.36	0.32	0.28
Wt. Average Rate of Interest	%	14.02%	14.02%	14.02%	14.02%	14.02%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>0.06</b>	<b>0.06</b>	<b>0.05</b>	<b>0.04</b>	<b>0.04</b>

**Bansagar Ph-4 (Jhinna)**

<b>Particulars</b>	<b>Unit</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Opening Loan balance	Rs. Cr	0.70	0.00	0.00	0.00	0.00
Repayment during the Year	Rs. Cr	0.70	0.70	0.00	0.00	0.00
Closing balance of Loan	Rs. Cr	0.00	0.00	0.00	0.00	0.00
Average Loan for the Year	Rs. Cr	0.35	0.00	0.00	0.00	0.00
Wt. Average Rate of Interest	%	14.02%	14.02%	14.02%	14.02%	14.02%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Madhikheda**

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Loan balance	Rs. Cr	23.23	11.87	9.19	6.51	3.83
Repayment during the Year	Rs. Cr	11.36	2.68	2.68	2.68	2.68
Closing balance of Loan	Rs. Cr	11.87	9.19	6.51	3.83	1.15
Average Loan for the Year	Rs. Cr	17.55	10.53	7.85	5.17	2.49
Wt.Average Rate of Interest	%	14.02%	14.02%	14.02%	14.02%	14.02%
<b>Interest Amount</b>	<b>Rs. Cr</b>	<b>2.46</b>	<b>1.48</b>	<b>1.10</b>	<b>0.72</b>	<b>0.35</b>

71. The summary of interest on loan allowed during control period FY 2019-20 to FY 2023-24 are worked out as given below:-

**Table 17: Summary of Interest on Loan Allowed (Rs in Crores)**

Sr no	Power Stations	Interest on Loan Allowed				
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	ATPS, Chachai PH-3	36.08	30.47	24.86	20.56	17.57
2	STPS PH-2&3	0.00	0.00	0.00	0.00	0.00
3	STPS, Sarni PH-4	180.00	162.15	144.30	126.45	108.60
4	SGTPS, PH-1&2	0.00	0.00	0.00	0.00	0.00
5	SGTPS, Birsing'pur PH-3	51.66	37.15	26.70	20.33	13.96
6	SSTPS PH-1	433.07	393.48	353.88	314.28	274.69
7	SSTPS PH-2	556.92	520.95	484.98	449.01	413.04
	<b>Thermal</b>	<b>1257.73</b>	<b>1144.19</b>	<b>1034.71</b>	<b>930.62</b>	<b>827.85</b>
8	Gandhi Sagar	0.06	0.06	0.05	0.04	0.04
9	Pench	0.00	0.00	0.00	0.00	0.00
10	Rajghat	0.00	0.00	0.00	0.00	0.00
11	Bargi	0.00	0.00	0.00	0.00	0.00
12	Bansagar (1,2&3)	0.00	0.00	0.00	0.00	0.00
13	Bansagar-4, Jhinna	0.05	0.00	0.00	0.00	0.00
14	Birsinghpur	0.00	0.00	0.00	0.00	0.00
15	Madhikheda	2.46	1.48	1.10	0.72	0.35
	<b>Hydel</b>	<b>2.57</b>	<b>1.53</b>	<b>1.15</b>	<b>0.77</b>	<b>0.39</b>
	<b>Total</b>	<b>1260.30</b>	<b>1145.72</b>	<b>1035.86</b>	<b>931.39</b>	<b>828.23</b>

## Depreciation

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

72. Regarding the depreciation, the petitioner broadly submitted the following:-

*In the instant petition, the depreciation on the Gross Block has been computed based on the following principles:-*

- (i) *The rates for depreciation are considered as approved by Commission in Appendix-II of MPERC Regulation 2020*
- (ii) *The salvage value of assets is considered as 10% i.e. none of the assets are 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 37.6 of MPERC regulation 2020 specifies that the remaining depreciable value as on 31<sup>st</sup> March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.*
- (v) *Accordingly, MPPGCL has worked out the reduced Wt. Av Rate of Depreciation for Stations who have completed the useful life of 12 years during the period 01-04-2019 to 31-03-2024.*
- (vi) *In case of Station who has not completed the useful life of 12 years, the Wt Av Rate of Depreciation is considered as submitted in the True Up Petition for FY 2018-19 and Final Tariff Petition for SSTPP Stage-II filed before Commission.*
- (vii) *The assets in the records of MPPGCL are only for its own share.*

**Table 18: Station wise Depreciation filed**

**(Rs in Crores)**

Station		Op. Balance as on 1-4-2019		Depreciation					Cl. Balance as on 31-03-2024		Cl. Acc. Dep. As % of GB
		Asset GB	Acc. Dep.	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Asset GB	Acc. Dep.	
1	ATPS PH-3	1136.32	508.48	51.36	52.28	35.11	37.16	37.89	1241.07	722.27	58%
2	STPS PH-2&3	604.6	549.61	0.00	0.00	0.00	0	0	604.6	549.61	90%
3	STPS PH-4	3221.55	842.3	168.26	171.56	173.65	174.01	174.08	3367.76	1703.86	51%
4	SGTPS 1&2	2215.08	1757.42	59.15	59.51	59.87	60.04	30.45	2239.33	2026.44	90%

5	SGTPS PH-3	2071.94	1049.32	104.8	57.42	58.58	59.33	59.51	2161.27	1388.95	64%
6	SSTPP PH-1	7335.69	1687.73	369.42	370.99	372.52	372.53	372.53	7398.94	3545.72	48%
7	SSTPP PH-2	6683.86	70.32	365.92	389.01	400.8	408.24	411.4	7832.96	2045.7	26%
8	<b>Total Thermal</b>	<b>23269.0</b>	<b>6465.2</b>	<b>1118.9</b>	<b>1100.7</b>	<b>1100.5</b>	<b>1111.3</b>	<b>1085.8</b>	<b>24845.9</b>	<b>11982.5</b>	
10	Gandhi Sagar	11.16	9.46	0.07	0.93	5.89	10.9	12.23	249.24	39.48	16%
11	Pench	103.46	84.4	1.02	1.33	1.76	2.03	2.39	137.05	92.94	68%
12	Rajghat	107.65	61.6	1.77	1.95	2.05	2.08	2.08	113.58	71.53	63%
13	Bargi	88.48	70.59	1.42	1.89	1.99	2.25	2.37	106.71	80.5	75%
14	Bansagar PH-1,2&3	1177.32	840.47	18.4	20.52	22.19	23.46	23.81	1285.79	948.84	74%
15	Bansagar 4	116.85	81.11	0.94	1.03	1.05	1.05	1.05	119.04	86.24	72%
16	Madhikheda	218.01	123.1	2.71	3.09	3.17	3.18	3.18	227.02	138.43	61%
17	Birsinghpur	52.41	40.88	0.57	0.69	0.853	0.88	0.9	58.69	44.77	76%
18	<b>Total Hydro</b>	<b>1875.34</b>	<b>1311.62</b>	<b>26.89</b>	<b>31.44</b>	<b>38.95</b>	<b>45.82</b>	<b>48.01</b>	<b>2238.44</b>	<b>1502.73</b>	
20	<b>Grand Total</b>	<b>25144.4</b>	<b>7776.81</b>	<b>1145.81</b>	<b>1132.2</b>	<b>1139.47</b>	<b>1157.1</b>	<b>1133.8</b>	<b>27084.3</b>	<b>13485.3</b>	

### Provisions of the Regulation:

73. Regulation 37 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 provides that,

*37.1“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.*

*37.2 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.*

*37.3 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 station, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:*

*Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated 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 the generating station or generating unit shall not be allowed to be recovered at a later stage during the useful life or the extended life:*

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

*37.4 Land other than the 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.*

*37.5 Depreciation shall be calculated annually based on 'Straight Line Method' and at rates specified in Appendix-I to these Regulations for the assets of the generating station.*

*37.6 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:*

*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 effective date of commercial operation of the station shall be spread over the balance useful life of the assets.*

*37.7 In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by*

*the Commission upto 31.3.2019 from the gross depreciable value of the assets.*

*37.8 The generating company shall submit the details of proposed capital expenditure five years before the completion of useful life of the project 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.*

*37.9 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: -**

74. Regulation 37.2 stated that the value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In accordance with the aforesaid Regulation, Gross Fixed Assets as on 31<sup>st</sup> March' 2019 admitted by the Commission in the last True-up Order for FY 2018-19 issued on 29<sup>th</sup> April' 2021 in petition No. 2 of 2020 is considered as the base opening figure of capital cost as on 01<sup>st</sup> April' 2019 for all power stations except SSTPP PH-2.
75. For SSTPP PH-2, Gross Fixed Assets as on 31<sup>st</sup> March' 2019 admitted by the Commission in the Final Tariff Order in petition No. 25 of 2020 is considered as the base opening figure of capital cost as on 01<sup>st</sup> April' 2019.
76. Further, the proposed additional capitalization during the control period is not considered in this order. Therefore, the capital cost as on 01<sup>st</sup> April' 2019 shall remain same for the entire control period.
77. The Commission has worked out the power station-wise Accumulated Depreciation balances as on 1<sup>st</sup> April' 2019 considering the following approach:
  - a) Accumulated Depreciation balances (as on 31<sup>st</sup> March' 2019) admitted by the Commission in last true-up order for FY 2018-19 for all power stations

(except SSTPP PH -2) covered under that true-up order are considered as the base figures as on 01<sup>st</sup> April' 2019, for Accumulated Depreciation balances.

- b) For power station SSTPS PH-2, Accumulated Depreciation balance as admitted by the Commission in final tariff order of SSTPP PH-2 (Petition No 25 of 2020) has been considered as Accumulated Depreciation balance as on 1<sup>st</sup> April' 2019.

78. As per proviso 37.6 of MPERC Regulations 2020 which provides that the remaining depreciable value as on 31<sup>st</sup> March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.
79. The Commission observed that ATPS PH-3, SGTPS PH-3, Bansagar Ph-4 HPS and Madhikheda HPS are completing the useful life of 12 years during the MYT period 01-04-2019 to 31-03-2024. Accordingly, the balance depreciation of these power stations has been spread over the balance useful life of the assets.
80. In case of remaining power Stations, the weighted average Rate of Depreciation is considered same as admitted in the True Up Order for FY 2018-19 and Final tariff order for SSTPP Stage-II.
81. Cumulative depreciation of STPS PH2&3 already reaches to 90% of the GFA therefore, no depreciation is allowed in this power station. Further, in SGTPS PH-1&2, the cumulative depreciation is reaching up to maximum of 90% of the capital cost of the asset during FY 2023-24, therefore, the depreciation is only allowed up to maximum of 90% of the capital cost of the asset.
82. The petitioner is directed to file a detailed year-wise Asset-Cum-Depreciation register in accordance with the Regulations, 2020 with the true-up petition for respective years of control period
83. Based on the above, the power station-wise depreciation is worked out in this order as given below :



**Table 19: Annual Depreciation Allowed**  
**ATPS PH-III**

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Gross fixed assets	Rs Cr	1124.39	1124.39	1124.39	1124.39	1124.39
Opening Cumulative Depreciation	Rs Cr	508.21	559.01	609.80	660.59	687.62
Opening Cumulative Depreciation % of the Opening GFA	%	45.20%	49.72%	54.23%	58.75%	61.15%
Applicable Wt. average Rate of Depreciation	%	4.52%	4.52%	4.52%	2.40%	2.40%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>50.79</b>	<b>50.79</b>	<b>50.79</b>	<b>27.03</b>	<b>27.03</b>
Closing Cumulative Depreciation	Rs Cr	559.01	609.80	660.59	687.62	714.65
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	49.72%	54.23%	58.75%	61.15%	63.56%

**STPS PH-II&III**

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Gross fixed assets	Rs Cr	604.60	604.60	604.60	604.60	604.60
Opening Cumulative Depreciation	Rs Cr	549.61	549.61	549.61	549.61	549.61
Opening Cumulative Depreciation % of the Opening GFA	%	90.00%	90.00%	90.00%	90.00%	90.00%
Applicable Weighted average Rate of Depreciation	%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Closing Cumulative Depreciation	Rs Cr	549.61	549.61	549.61	549.61	549.61
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	90.00%	90.00%	90.00%	90.00%	90.00%

**STPS PH-IV**

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Gross fixed assets	Rs Cr	3209.04	3209.04	3209.04	3209.04	3209.04
Opening Cumulative Depreciation	Rs Cr	841.98	1007.91	1173.84	1339.77	1505.70
Opening Cumulative Depreciation % of the Opening GFA	%	26.24%	31.41%	36.58%	41.75%	46.92%
Applicable Weighted average Rate of Depreciation	%	5.17%	5.17%	5.17%	5.17%	5.17%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>165.93</b>	<b>165.93</b>	<b>165.93</b>	<b>165.93</b>	<b>165.93</b>
Closing Cumulative Depreciation	Rs Cr	1007.91	1173.84	1339.77	1505.70	1671.64
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	31.41%	36.58%	41.75%	46.92%	52.09%

**SGTPS PH-I&II**

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Gross fixed assets	Rs Cr	2205.30	2205.30	2205.30	2205.30	2205.30
Opening Cumulative Depreciation	Rs Cr	1757.29	1806.02	1854.76	1903.50	1952.24
Opening Cumulative Depreciation % of Opening GFA	%	79.68%	81.89%	84.10%	86.31%	88.52%
Applicable Weighted average Rate of Depreciation	%	2.21%	2.21%	2.21%	2.21%	1.48%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>48.74</b>	<b>48.74</b>	<b>48.74</b>	<b>48.74</b>	<b>32.53</b>
Closing Cumulative Depreciation	Rs Cr	1806.02	1854.76	1903.50	1952.24	1984.77
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	81.89%	84.10%	86.31%	88.52%	90.00%

**SGTPS PH-III**

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Gross fixed assets	Rs Cr	2052.05	2052.05	2052.05	2052.05	2052.05
Opening Cumulative Depreciation	Rs Cr	1048.78	1152.31	1255.83	1301.30	1346.76
Opening Cumulative Depreciation % of the Opening GFA	%	51.11%	56.15%	61.20%	63.41%	65.63%
Applicable Weighted average Rate of Depreciation	%	5.04%	5.04%	2.22%	2.22%	2.22%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>103.53</b>	<b>103.53</b>	<b>45.46</b>	<b>45.46</b>	<b>45.46</b>
Closing Cumulative Depreciation	Rs Cr	1152.31	1255.83	1301.30	1346.76	1392.22
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	56.15%	61.20%	63.41%	65.63%	67.85%

**SSTPP PH-I**

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Gross fixed assets	Rs Cr	7312.27	7312.27	7312.27	7312.27	7312.27
Opening Cumulative Depreciation	Rs Cr	1687.14	2055.36	2423.58	2791.80	3160.02
Opening Cumulative Depreciation % of the Opening GFA	%	23.07%	28.11%	33.14%	38.18%	43.22%
Applicable Weighted average Rate of Depreciation	%	5.04%	5.04%	5.04%	5.04%	5.04%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>368.22</b>	<b>368.22</b>	<b>368.22</b>	<b>368.22</b>	<b>368.22</b>
Closing Cumulative Depreciation	Rs Cr	2055.36	2423.58	2791.80	3160.02	3528.24
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	28.11%	33.14%	38.18%	43.22%	48.25%

## SSTPP PH-2

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Gross fixed assets	Rs Cr	6336.21	6336.21	6336.21	6336.21	6336.21
Opening Cumulative Depreciation	Rs Cr	62.87	394.89	726.90	1058.92	1390.94
Opening Cumulative Depreciation % of the Opening GFA	%	0.99%	6.23%	11.47%	16.71%	21.95%
Applicable Weighted average Rate of Depreciation	%	5.24%	5.24%	5.24%	5.24%	5.24%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>332.02</b>	<b>332.02</b>	<b>332.02</b>	<b>332.02</b>	<b>332.02</b>
Closing Cumulative Depreciation	Rs Cr	394.89	726.90	1058.92	1390.94	1722.96
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	6.23%	11.47%	16.71%	21.95%	27.19%

## Gandhi Sagar

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Gross fixed assets	Rs Cr	11.16	11.16	11.16	11.16	11.16
Opening Cumulative Depreciation	Rs Cr	9.46	9.51	9.55	9.59	9.63
Opening Cumulative Depreciation % of the Opening GFA	%	84.81%	85.18%	85.54%	85.90%	86.26%
Applicable Weighted average Rate of Depreciation	%	0.36%	0.36%	0.36%	0.36%	0.36%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>0.04</b>	<b>0.04</b>	<b>0.04</b>	<b>0.04</b>	<b>0.04</b>
Closing Cumulative Depreciation	Rs Cr	9.51	9.55	9.59	9.63	9.67
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	85.18%	85.54%	85.90%	86.26%	86.62%

## Pench

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Gross fixed assets	Rs Cr	103.45	103.45	103.45	103.45	103.45
Opening Cumulative Depreciation	Rs Cr	84.40	85.99	87.59	89.18	90.77
Opening Cumulative Depreciation % of the Opening GFA	%	81.59%	83.13%	84.67%	86.21%	87.75%
Applicable Weighted average Rate of Depreciation	%	1.54%	1.54%	1.54%	1.54%	1.54%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>1.59</b>	<b>1.59</b>	<b>1.59</b>	<b>1.59</b>	<b>1.59</b>
Closing Cumulative Depreciation	Rs Cr	85.99	87.59	89.18	90.77	92.36
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	83.13%	84.67%	86.21%	87.75%	89.29%

### Rajghat

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Gross fixed assets	Rs Cr	107.14	107.14	107.14	107.14	107.14
Opening Cumulative Depreciation	Rs Cr	61.59	66.20	70.82	75.44	80.05
Opening Cumulative Depreciation % of the Opening GFA	%	57.48%	61.79%	66.10%	70.41%	74.72%
Applicable Weighted average Rate of Depreciation	%	4.31%	4.31%	4.31%	4.31%	4.31%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>4.62</b>	<b>4.62</b>	<b>4.62</b>	<b>4.62</b>	<b>4.62</b>
Closing Cumulative Depreciation	Rs Cr	66.20	70.82	75.44	80.05	84.67
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	61.79%	66.10%	70.41%	74.72%	79.03%

### Bargi

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Gross fixed assets	Rs Cr	88.45	88.45	88.45	88.45	88.45
Opening Cumulative Depreciation	Rs Cr	70.44	72.18	73.93	75.67	77.41
Opening Cumulative Depreciation % of the Opening GFA	%	79.64%	81.61%	83.58%	85.55%	87.52%
Applicable Weighted average Rate of Depreciation	%	1.97%	1.97%	1.97%	1.97%	1.97%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>1.74</b>	<b>1.74</b>	<b>1.74</b>	<b>1.74</b>	<b>1.74</b>
Closing Cumulative Depreciation	Rs Cr	72.18	73.93	75.67	77.41	79.15
Closing Cumulative Depreciation % of the Gross Fixed Assets	Rs Cr	81.61%	83.58%	85.55%	87.52%	89.49%

### Bansagar PH-I, II&III

Particulars	Unit	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening Gross fixed assets	Rs Cr	1177.12	1177.12	1177.12	1177.12	1177.12
Opening Cumulative Depreciation	Rs Cr	840.44	881.40	922.37	963.33	1004.29
Opening Cumulative Depreciation % of the Opening GFA	%	71.40%	74.88%	78.36%	81.84%	85.32%

Applicable Weighted average Rate of Depreciation	%	3.48%	3.48%	3.48%	3.48%	3.48%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>40.96</b>	<b>40.96</b>	<b>40.96</b>	<b>40.96</b>	<b>40.96</b>
Closing Cumulative Depreciation	Rs Cr	881.40	922.37	963.33	1004.29	1045.26
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	74.88%	78.36%	81.84%	85.32%	88.80%

### **Bansagar PH-IV**

<b>Particulars</b>	<b>Unit</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Opening Gross fixed assets	Rs Cr	116.85	116.85	116.85	116.85	116.85
Opening Cumulative Depreciation	Rs Cr	81.11	82.16	83.21	84.25	84.69
Opening Cumulative Depreciation % of the Opening GFA	%	69.42%	70.31%	71.21%	72.10%	72.48%
Applicable Weighted average Rate of Depreciation	%	0.89%	0.89%	0.89%	0.89%	0.89%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>1.05</b>	<b>1.05</b>	<b>1.05</b>	<b>1.05</b>	<b>1.05</b>
Closing Cumulative Depreciation	Rs Cr	82.16	83.21	84.25	85.30	86.34
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	70.31%	71.21%	72.10%	73.00%	73.89%

### **Madhikheda**

<b>Particulars</b>	<b>Unit</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Opening Gross fixed assets	Rs Cr	218.01	218.01	218.01	218.01	218.01
Opening Cumulative Depreciation	Rs Cr	123.10	134.46	137.14	139.83	142.51
Opening Cumulative Depreciation % of the Opening GFA	%	56.47%	61.68%	62.91%	64.14%	65.37%
Applicable Weighted average Rate of Depreciation	%	5.21%	1.23%	1.23%	1.23%	1.23%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>11.36</b>	<b>2.68</b>	<b>2.68</b>	<b>2.68</b>	<b>2.68</b>
Closing Cumulative Depreciation	Rs Cr	134.46	137.14	139.83	142.51	145.20
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	61.68%	62.91%	64.14%	65.37%	66.60%

### **Birsinghpur**

<b>Particulars</b>	<b>Unit</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Opening Gross fixed assets	Rs Cr	52.41	52.41	52.41	52.41	52.41

Opening Cumulative Depreciation	Rs Cr	40.88	41.78	42.68	43.57	44.47
Opening Cumulative Depreciation % of the Opening GFA	%	78.00%	79.72%	81.43%	83.15%	84.86%
Applicable Weighted average Rate of Depreciation	%	1.71%	1.71%	1.71%	1.71%	1.71%
<b>Depreciation Amount</b>	<b>Rs Cr</b>	<b>0.90</b>	<b>0.90</b>	<b>0.90</b>	<b>0.90</b>	<b>0.90</b>
Closing Cumulative Depreciation	Rs Cr	41.78	42.68	43.57	44.47	45.37
Closing Cumulative Depreciation % of the Closing GFA	Rs Cr	79.72%	81.43%	83.15%	84.86%	86.58%

84. Based on above the summary of Depreciation allowed for the control period FY 2019-20 to FY 2023-24 are as given below:-

**Table 20: Summary of Depreciation allowed during control period (Rs in Crores)**

Sr. No.	Power Stations	Depreciation Allowed				
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	ATPS, Chachai PH-3	50.79	50.79	50.79	27.03	27.03
2	STPS PH-2&3	0.00	0.00	0.00	0.00	0.00
3	STPS, Sarni PH-4	165.93	165.93	165.93	165.93	165.93
4	SGTPS, PH-1&2	48.74	48.74	48.74	48.74	32.53
5	SGTPS, Birsinghpur PH-3	103.53	103.53	45.46	45.46	45.46
6	SSTPS PH-1	368.22	368.22	368.22	368.22	368.22
7	SSTPS PH-2	332.02	332.02	332.02	332.02	332.02
	<b>Thermal</b>	<b>1069.23</b>	<b>1069.23</b>	<b>1011.16</b>	<b>987.40</b>	<b>971.20</b>
8	Gandhi Sagar	0.04	0.04	0.04	0.04	0.04
9	Pench	1.59	1.59	1.59	1.59	1.59
10	Rajghat	4.62	4.62	4.62	4.62	4.62
11	Bargi	1.74	1.74	1.74	1.74	1.74
12	Bansagar (1,2&3)	40.96	40.96	40.96	40.96	40.96
13	Bansagar-4, Jhinna	1.05	1.05	1.05	1.05	1.05
14	Birsinghpur	0.90	0.90	0.90	0.90	0.90
15	Madhikheda	11.36	2.68	2.68	2.68	2.68
	<b>Hydel</b>	<b>62.26</b>	<b>53.58</b>	<b>53.58</b>	<b>53.58</b>	<b>53.58</b>
	<b>Total</b>	<b>1131.48</b>	<b>1122.81</b>	<b>1064.75</b>	<b>1040.98</b>	<b>1024.78</b>

### **Operation & Maintenance Expenses**

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

85. 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 21: Operation & Maintenance Expenses Filed (Rs in Crores)**

<b>Name of Power House</b>	<b>Capacity in MW</b>	<b>FY 19-20</b>	<b>FY 20-21</b>	<b>FY 21-22</b>	<b>FY 22-23</b>	<b>FY 23-24</b>
ATPS PH 3	210	59.43	61.51	63.67	65.92	68.23
STPS PH-2&3	830	234.89	243.11	251.66	260.54	269.67
STPS PH-4	500	164.80	170.60	176.55	182.80	189.20
SGTPS PH 1&2	840	237.72	246.04	254.69	263.68	272.92
SGTPS PH 3	500	113.60	117.60	121.70	126.00	130.40
SSTPP PH-1	1200	243.12	251.64	260.52	269.64	279.12
SSTPP PH-2	1320	267.43	276.80	286.57	296.60	307.03
<b>Thermal</b>	<b>5400</b>	<b>1320.99</b>	<b>1367.30</b>	<b>1415.36</b>	<b>1465.18</b>	<b>1516.56</b>
G. Sagar (100%) HPS	115	13.04	13.50	13.98	14.47	14.97
Pench (100%) HPS	160	18.14	18.78	19.46	20.13	20.83
Rajghat (100%) HPS	45	5.10	5.28	5.47	5.66	5.86
Bargi HPS	90	10.21	10.57	10.94	11.32	11.72
Bansagar PH-1,2&3 HPS	405	45.93	47.55	49.25	50.95	52.73
Bansagar PH-4 HPS	20	2.27	2.35	2.43	2.52	2.60
Madhikheda HPS	60	6.80	7.04	7.30	7.55	7.81
Birsinghpur HPS	20	2.27	2.35	2.43	2.52	2.60
<b>Hydro (100%)</b>	<b>915</b>	<b>103.76</b>	<b>107.42</b>	<b>111.26</b>	<b>115.11</b>	<b>119.13</b>
<b>Total (100%)</b>	<b>6315</b>	<b>1424.75</b>	<b>1474.72</b>	<b>1526.62</b>	<b>1580.28</b>	<b>1635.70</b>

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

86. The norms for Operation and Maintenance Expenses for thermal generating units commissioned prior to 01.04.2012 are prescribed under Regulation 40.1 of the Regulations, 2020 for the control period FY 2019-20 to FY 2023-24 are as given below:



<b>Units (MW)</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
200/210/250	28.30	29.29	30.32	31.39	32.49
500	22.72	23.52	24.34	25.20	26.08

87. The norms for Operation and Maintenance Expenses for thermal generating units commissioned on or after 01/04/2012 are prescribed under Regulation 40.2 of the Regulations, 2020 for the control period FY 2019-20 to FY 2023-24 are as given below:

<b>Units (MW)</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
45 MW	37.51	38.83	40.19	41.60	43.06
200/210/250 MW	32.96	34.12	35.31	36.56	37.84
300 MW Series	27.74	28.71	29.72	30.76	31.84
500 MW Series	22.51	23.30	24.12	24.97	25.84
600/660 MW Series	20.26	20.97	21.71	22.47	23.26
800 MW Series and above	18.23	18.87	19.54	20.22	20.93

88. The norms for Operation and Maintenance Expenses for hydel generating units which have achieved COD prior to 01.04.2019 are prescribed under Regulation 41.2 of the Regulations, 2020 for the control period FY 2019-20 to FY 2023-24 are as given below:

<b>Year</b>	<b>O&amp;M Expenses in Rs. in lakh/MW</b>
<b>FY 2019-20</b>	11.34
<b>FY 2020-21</b>	11.74
<b>FY 2021-22</b>	12.16
<b>FY 2022-23</b>	12.58
<b>FY 2023-24</b>	13.02

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

89. Based on the above Regulations, the operations and maintenance expenses allowed during control period FY 2019-20 to FY 2023-24 have been worked out as given below:-

**Table 22: Operation & Maintenance Expenses Allowed (Rs in Crores)**

S.NO	POWER STATION	MW	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	ATPS PH-3	210	59.43	61.51	63.67	65.92	68.23
2	STPS PH-2 & 3	830	234.89	243.11	251.66	260.54	269.67
3	STPS PH-4	500	164.80	170.60	176.55	182.80	189.20
4	SGTPS PH-1 & 2	840	237.72	246.04	254.69	263.68	272.92
5	SGTPS PH-3	500	113.60	117.60	121.70	126.00	130.40
6	SSTPS PH-1	1200	243.12	251.64	260.52	269.64	279.12
7	SSTPS PH-2	1320	267.43	276.80	286.57	296.60	307.03
	<b>Total Thermal</b>		<b>1320.99</b>	<b>1367.30</b>	<b>1415.36</b>	<b>1465.18</b>	<b>1516.56</b>
8	Gandhi Sagar	115	13.04	13.50	13.98	14.47	14.97
9	Pench	160	18.14	18.78	19.46	20.13	20.83
10	Rajghat	45	5.10	5.28	5.47	5.66	5.86
11	Bargi	90	10.21	10.57	10.94	11.32	11.72
12	Bansagar (1,2&3)	405	45.93	47.55	49.25	50.95	52.73
13	Bansagar-4, Jhinna	20	2.27	2.35	2.43	2.52	2.60
14	Birsinghpur	20	2.27	2.35	2.43	2.52	2.60
15	Madhikheda	60	6.80	7.04	7.30	7.55	7.81
	<b>Total Hydro</b>		<b>103.76</b>	<b>107.42</b>	<b>111.26</b>	<b>115.11</b>	<b>119.13</b>
	<b>Total</b>		<b>1424.75</b>	<b>1474.72</b>	<b>1526.62</b>	<b>1580.28</b>	<b>1635.70</b>

**Special Allowance****Petitioner's Submission**

90. The petitioner broadly submitted the following:

*Clause 30.2 of the Regulations, 2020 provides that the special allowance admissible to the generating station shall be @ Rs. 9.5 Lakh /MW/Year for the tariff period 2019-24. Accordingly, the Special Allowance for STPS PH-2&3, Sarni has been calculated and detailed below:*

**in Rs. Crores**

Power House	Capacity in MW	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
STPS PH-2&3, Sarni	830.00	78.85	78.85	78.85	78.85	78.85

**Table 23: Rs Lakhs/MW/year**

<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
9.5	9.5	9.5	9.5	9.5

*Accordingly, the amount of Special Allowance works out as under:- (Rs Crore)*

<b>Power House</b>	<b>Capacity (MW)</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
STPS PH 2&3	830	78.85	78.85	78.85	78.85	78.85

### **Provisions in Regulation:**

91. Regulation 30.2 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 provides that:

*The special allowance admissible to the generating station shall be @ Rs. 9.5 lakh/MW/year for the tariff period 2019-24.*

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

92. The Tariff Regulation, 2020 provides that the generating company, instead of availing R&M may opt to avail a "special allowance" in accordance with the norms specified in this Regulation, as compensation for meeting the requirement of expenses including renovation and modernisation beyond the useful life of the generating station or a unit thereof, and in such an event, upward revision of the capital cost shall not be allowed and the applicable operational norms shall not be relaxed but the special allowance shall be included in the annual fixed cost.
93. 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.
94. For the purpose of computation of special allowance during the control period FY 2019-20 to FY 2023-24, the Commission has considered special allowance admissible to the generating station @ Rs. 9.5 lakh/MW/year for every year during the control period FY 2019-20 to FY 2023-24.

95. Accordingly, the special allowance for STPS PH II & III is worked out in this order as given below:

**Table 24: Special Allowance allowed in order (Rs in Crores)**

Power House	Capacity (MW)	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
STPS PH 2&3	830	78.85	78.85	78.85	78.85	78.85

### Interest on Working Capital

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

96. With regard to interest on working capital, the petitioner broadly submitted the following:

*The Power station wise Working capital and Interest on Working Capital for FY 2019-20 to FY 2023-24 works out as under:*

**Table 25: Working Capital and Interest on Working Capital filed (Rs in Crores)**

Power Station	Working Capital				
	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
ATPS PH-3	108.49	108.96	107.61	108.84	109.63
STPS PH-2&3	536.57	539.96	543.49	547.15	550.92
STPS PH-4	371.06	372.54	373.53	373.92	374.25
SGTPS PH-1&2	439.14	442.65	446.32	450.08	450.20
SGTPS PH-3	274.17	268.98	270.38	271.49	272.41
SSTPP PH-I	927.43	926.62	925.92	924.67	923.58
SSTPP PH-2	1040.69	1048.77	1052.24	1053.92	1053.95
<b>Total Thermal</b>	<b>3697.55</b>	<b>3708.49</b>	<b>3719.49</b>	<b>3730.08</b>	<b>3734.92</b>
Gandhi Sagar	4.80	5.31	7.74	10.18	10.79
Pench	7.37	7.73	8.16	8.52	8.89
Rajghat	2.63	2.73	2.83	2.90	2.98
Bargi	4.51	4.78	4.99	5.18	5.37
Bansagar PH-1,2&3	26.21	27.35	28.52	29.36	29.92
Bansagar PH-4	1.67	1.71	1.75	1.78	1.81

Madhikheda	4.14	4.30	4.43	4.47	4.51
Birsinghpur	1.22	1.28	1.37	1.41	1.44
<b>Total Hydro</b>	<b>52.54</b>	<b>55.19</b>	<b>59.78</b>	<b>63.81</b>	<b>65.71</b>
<b>Total</b>	<b>3750.09</b>	<b>3763.68</b>	<b>3779.27</b>	<b>3793.88</b>	<b>3800.63</b>

Power Station	Interest on Working Capital				
	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
ATPS PH-3	12.53	12.58	12.43	12.57	12.66
STPS PH-2&3	61.97	62.37	62.77	63.2	63.63
STPS PH-4	42.86	43.03	43.14	43.19	43.23
SGTPS PH-1&2	50.72	51.13	51.55	51.98	52
SGTPS PH-3	31.67	31.07	31.23	31.36	31.46
SSTPP PH-I	107.12	107.03	106.94	106.8	106.67
SSTPP PH-2	120.20	121.13	121.53	121.73	121.73
<b>Total Thermal</b>	<b>427.07</b>	<b>428.33</b>	<b>429.6</b>	<b>430.82</b>	<b>431.38</b>
Gandhi Sagar	0.55	0.61	0.89	1.18	1.25
Pench	0.85	0.89	0.94	0.98	1.03
Rajghat	0.30	0.32	0.33	0.34	0.34
Bargi	0.52	0.55	0.58	0.6	0.62
Bansagar PH-1,2&3	3.03	3.16	3.29	3.39	3.46
Bansagar PH-4	0.19	0.2	0.2	0.21	0.21
Madhikheda	0.48	0.5	0.51	0.52	0.52
Birsinghpur	0.14	0.15	0.16	0.16	0.17
<b>Total Hydro</b>	<b>6.07</b>	<b>6.37</b>	<b>6.9</b>	<b>7.37</b>	<b>7.59</b>
<b>Total</b>	<b>433.14</b>	<b>434.71</b>	<b>436.51</b>	<b>438.19</b>	<b>438.97</b>

### Provisions in Regulation:

97. With regard to interest on working capital, Regulation 38 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulation, 2020 provides that:

38.1 "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) Advance payment for 30 days towards cost of coal 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 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;*
  - (d) Maintenance spares @ 20% of operation and maintenance expenses specified in Regulation 39 and 40 of these Regulations;*
  - (e) Receivables equivalent to 45 days 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.*
- (2) Hydro generating station, (including pumped storage hydro generating stations) the working capital shall include:*
- (i) Receivables equivalent to 45 days of Annual fixed cost;*
  - (ii) Maintenance spares @ 15% of operation and maintenance expenses specified in Regulation 39 and 41 of these Regulations; and*
  - (iii) Operation and maintenance expenses for one month*

*38.2 The cost of fuel shall be based on the landed fuel cost incurred (taking into account normative transit and handling losses) by the generating station and gross calorific value of the fuel as per actual weightage average 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.”*

*Provided that in case of new generating station, the cost of fuel for the first financial year shall be considered based on landed fuel cost (taking into account normative transit and handing losses) and gross calorific value of the fuel as per actual weighted average for three months, as used for infirm power, preceding date of commercial operation for which tariff is to be determined*

38.3 *“Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1<sup>st</sup> April of the year during the tariff period 2019-20 to 2023-24 in which the generating station or a unit thereof, is declared under commercial operation, whichever is later:*

*Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1<sup>st</sup> April of each of the financial year during the tariff period 2019-24.*

38.4 *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:**

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

**Cost of coal for 60 Days**

99. The petitioner’s power stations is non pit-head stations, therefore, the cost of coal for 60 days (30 days towards stock and 30 days towards advance payment) for generation corresponding to the normative annual plant availability factor is considered for working capital purpose. The weighted average rate of coal is worked out as per the details filed by the petitioner for the preceding three months i.e., January, February and March’ 2019 in accordance to the Regulations.

100. GCV of coal has been considered as per the information filed by the petitioner on ‘received basis’ for the preceding three months i.e., January, February and March’ 2019 vide affidavit dated 30<sup>th</sup> December’ 2020. The petitioner also filed the laboratory test reports for GCV of coal on received basis for aforesaid preceding three months in this regard. Accordingly, the 60 days cost of coal for working capital is worked out as under.



**Table 26: Cost of Coal for 60 Days for Working Capital**

Particulars	UNITS	ATPS PH-3	STPS PH-2&3	STPS PH-4	SGTPS PH-1&2	SGTPS PH-3	SSTPP PH-1	SSTPP PH-2
Installed Capacity	MW	210	830	500	840	500	1200	1320
NAPAF	%	85%	70%	85%	75%	85%	85%	85%
GSHR	KCal/kWh	2450	2850	2400	2700	2390	2384.25	2175.28
Gross Generation	MUs	1564	5090	3723	5519	3723	8935	9828.72
GCV of Coal	KCal/Kg	4347	3697	3737	3729	3776	3707	3499
Sp. Coal Consumption	kg/kWh	0.562	0.766	0.641	0.721	0.632	0.642	0.620
Annual Coal Consumption	MT	879491	3899426	2386028	3978893	2351524	5734846	6096335
60 days Coal Stock	MT	146582	649904	397671	663149	391921	955808	1016056
Wt. Average Rate of Coal	Rs./MT	2239	3401	3291	2628	2729	4240	4211
<b>Coal Cost (60 Days stock)</b>	<b>Rs in Cr.</b>	<b>32.82</b>	<b>221.03</b>	<b>130.87</b>	<b>174.28</b>	<b>106.96</b>	<b>405.26</b>	<b>427.86</b>

**Secondary Fuel Oil Cost**

101. The petitioner filed the cost of secondary fuel oil based on the fuel oil procured during preceding three months vide its affidavit dated 30<sup>th</sup> December' 2020. The petitioner submitted the details of fuel oil procured i.e, (FO) and worked out the weighted average rate of secondary fuel oil.
102. Regulation 38.1 of the Regulations, 2020 provides that in case of use of more than one secondary fuel oil, cost of fuel oil stock shall be provided for the main secondary fuel oil. In view of the above provision, the petitioner was asked to confirm along with details that the cost of only main fuel is considered while determining the working capital
103. By affidavit dated 30<sup>th</sup> December' 2020, the petitioner informed that it has considered only the cost of main Secondary fuel Oil i.e. Furnace Oil for determining the Working Capital Hence, it is observed that while computing the annual working capital requirement, the petitioner has claimed the cost of Furnace Oil only as main secondary fuel oil for two months as per Regulation 38.1 of the MPERC Tariff Regulations, 2020.

104. The petitioner has worked out the weighted average rate of oil for the control period based on the landed price of secondary fuel oil purchased for the preceding three months. The same weighted average rate of oil is considered by the Commission in this order. Accordingly, the cost of two months' main fuel oil stock at normative availability is worked out as given below:

**Table 27: Cost of Secondary fuel oil for working capital**

Particulars	UNITS	ATPS PH-3	STPS PH-2&3	STPS PH-4	SGTPS PH-1&2	SGTPS PH-3	SSTPS PH-1	SSTPS PH-2
Installed Capacity	MW	210	830	500	840	500	1200	1320
Gross Generation	MUs	1564	5090	3723	5519	3723	8935	9829
GCV of Oil considered	Kcal/Ltr	10000	10000	10000	10000	10000	10000	10000
Sp. Oil Consumption	kg/kWh	0.50	1.75	0.50	1.15	0.50	0.50	0.50
Annual Oil Consumption	KL	781.83	8906.73	1861.50	6346.62	1861.50	4467.60	4914.36
Two Month Oil Stock	KL	130.31	1484.46	310.25	1057.77	310.25	744.60	819.06
Rate of Oil	Rs./KL	53080	44033	44033	44400	44400	43804	39286
<b>Oil Cost (Two Month stock)</b>	<b>Rs Cr.</b>	<b>0.69</b>	<b>6.54</b>	<b>1.37</b>	<b>4.70</b>	<b>1.38</b>	<b>3.26</b>	<b>3.22</b>

**Maintenance Spares**

105. 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.
106. The summary of Maintenance Spares allowed for the control period FY 2019-20 to FY 2023-24 are as given below:

**Table 28: Maintenance Spares Considered (Rs in Crore)**

Sr. N.o	Power Stations	Maintenance Spares Allowed for Thermal & Hydro				
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	ATPS, Chachai PH-3	11.89	12.30	12.73	13.18	13.65
2	STPS PH-2&3	46.98	48.62	50.33	52.11	53.93
3	STPS, Sarni PH-4	32.96	34.12	35.31	36.56	37.84
4	SGTPS, PH-1&2	47.54	49.21	50.94	52.74	54.58
5	SGTPS, Birsing'pur PH-3	22.72	23.52	24.34	25.20	26.08

6	SSTPS PH-1	48.62	50.33	52.10	53.93	55.82
7	SSTPS PH-2	53.49	55.36	57.31	59.32	61.41
	<b>Thermal</b>	<b>264.20</b>	<b>273.46</b>	<b>283.07</b>	<b>293.04</b>	<b>303.31</b>
8	Gandhi Sagar	1.96	2.03	2.10	2.17	2.25
9	Pench	2.72	2.82	2.92	3.02	3.12
10	Rajghat	0.77	0.79	0.82	0.85	0.88
11	Bargi	1.53	1.58	1.64	1.70	1.76
12	Bansagar (I to III)	6.89	7.13	7.39	7.64	7.91
13	Bansagar-4, Jhinna	0.34	0.35	0.36	0.38	0.39
14	Birsinghpur	0.34	0.35	0.36	0.38	0.39
15	Madhikheda	1.02	1.06	1.09	1.13	1.17
	<b>Hydel</b>	<b>15.56</b>	<b>16.11</b>	<b>16.69</b>	<b>17.27</b>	<b>17.87</b>
	<b>Total</b>	<b>279.76</b>	<b>289.57</b>	<b>299.76</b>	<b>310.30</b>	<b>321.18</b>

### O&M Expenses

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

108. The summary of O&M expenses allowed in this order for the control period are as given below:

**Table 29: O&M Expenses allowed for 1 Month (Rs in Crore)**

Sr. No.	Power Stations	O&M Expenses (1 Month)				
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	ATPS, Chachai PH-3	4.95	5.13	5.31	5.49	5.69
2	STPS PH-2&3	19.57	20.26	20.97	21.71	22.47
3	STPS, Sarni PH-4	13.73	14.22	14.71	15.23	15.77
4	SGTPS, PH-1&2	19.81	20.50	21.22	21.97	22.74
5	SGTPS, Birsinghpur PH-3	9.47	9.80	10.14	10.50	10.87
6	SSTPS PH-1	20.26	20.97	21.71	22.47	23.26
7	SSTPS PH-2	22.29	23.07	23.88	24.72	25.59
	<b>Thermal</b>	<b>110.08</b>	<b>113.94</b>	<b>117.95</b>	<b>122.10</b>	<b>126.38</b>
8	Gandhi Sagar	1.09	1.13	1.17	1.21	1.25
9	Pench	1.51	1.57	1.62	1.68	1.74
10	Rajghat	0.43	0.44	0.46	0.47	0.49
11	Bargi	0.85	0.88	0.91	0.94	0.98
12	Bansagar (I to III)	3.83	3.96	4.10	4.25	4.39
13	Bansagar-4, Jhinna	0.19	0.20	0.20	0.21	0.22
14	Birsinghpur	0.19	0.20	0.20	0.21	0.22
15	Madhikheda	0.57	0.59	0.61	0.63	0.65
	<b>Hydel</b>	<b>8.65</b>	<b>8.95</b>	<b>9.27</b>	<b>9.59</b>	<b>9.93</b>
	<b>Total</b>	<b>118.73</b>	<b>122.89</b>	<b>127.22</b>	<b>131.69</b>	<b>136.31</b>

**Receivables**

109. Receivables for thermal power stations is worked out equivalent to 45 days 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 45 days of Annual capacity (fixed) charges.

**Table 30: 45 Days Receivables for working Capital (year Wise) (Rs in Cores)**

Sr. No.	Power Station	FY 2019-20		
		45 Days Fixed Charges	45 Days Energy Charges	Receivables 45 days
1	ATPS PH-3	24.35	24.73	49.08
2	STPS PH-2&3	39.73	168.01	207.74
3	STPS PH-4	80.38	97.58	177.96
4	SGTPS PH-1&2	54.12	132.34	186.45
5	SGTPS PH-3	48.08	80.01	128.09
6	SSTPP PH-1	169.36	301.57	470.93
7	SSTPP PH-2	175.42	318.13	493.55
	<b>Total Thermal</b>	<b>591.44</b>	<b>1122.36</b>	<b>1713.80</b>
8	Gandhi Sagar	1.76		1.76
9	Pench	3.17		3.17
10	Rajghat	1.79		1.79
11	Bargi	2.07		2.07
12	Bansagar PH-1,2&3	18.28		18.28
13	Bansagar PH-4	1.15		1.15
14	Birsinghpur	0.73		0.73
15	Madhikheda	3.55		3.55
	<b>Total Hydro</b>	<b>32.48</b>		<b>32.48</b>
	<b>Total</b>	<b>623.92</b>	<b>1122.36</b>	<b>1746.28</b>

Sr. No	Power Station	FY 2020-21		
		45 Days Fixed Charges	45 Days Energy Charges	Receivables 45 days
1	ATPS PH-3	23.89	24.73	48.61
2	STPS PH-2&3	40.40	168.01	208.41
3	STPS PH-4	78.76	97.58	176.34
4	SGTPS PH-1&2	54.91	132.34	187.24
5	SGTPS PH-3	46.64	80.01	126.65

6	SSTPP PH-1	165.03	301.57	466.60
7	SSTPP PH-2	171.62	318.13	489.75
	<b>Total Thermal</b>	<b>581.25</b>	<b>1122.36</b>	<b>1703.61</b>
8	Gandhi Sagar	1.81		1.81
9	Pench	3.25		3.25
10	Rajghat	1.81		1.81
11	Bargi	2.12		2.12
12	Bansagar PH-1,2&3	18.51		18.51
13	Bansagar PH-4	1.16		1.16
14	Birsinghpur	0.74		0.74
15	Madhikheda	2.38		2.38
	<b>Total Hydro</b>	<b>31.77</b>		<b>31.77</b>
	<b>Total</b>	<b>613.03</b>	<b>1122.36</b>	<b>1735.38</b>

S. No.	Power Station	FY 2021-22		
		45 Days Fixed Charges	45 Days Energy Charges	Receivables 45 days
1	ATPS PH-3	23.46	24.73	48.19
2	STPS PH-2&3	41.50	168.01	209.51
3	STPS PH-4	77.30	97.58	174.88
4	SGTPS PH-1&2	56.02	132.34	188.36
5	SGTPS PH-3	38.61	80.01	118.62
6	SSTPP PH-1	161.23	301.57	462.79
7	SSTPP PH-2	168.38	318.13	486.52
	<b>Total Thermal</b>	<b>566.51</b>	<b>1122.36</b>	<b>1688.87</b>
8	Gandhi Sagar	1.88		1.88
9	Pench	3.34		3.34
10	Rajghat	1.83		1.83
11	Bargi	2.17		2.17
12	Bansagar PH-1,2&3	18.72		18.72
13	Bansagar PH-4	1.17		1.17
14	Birsinghpur	0.75		0.75
15	Madhikheda	2.36		2.36
	<b>Total Hydro</b>	<b>32.22</b>		<b>32.22</b>
	<b>Total</b>	<b>598.73</b>	<b>1122.36</b>	<b>1721.08</b>

S. No	Power Station	FY 2022-23		
		45 Days Fixed Charges	45 Days Energy Charges	Receivables 45 days
1	ATPS PH-3	20.25	24.73	44.97

2	STPS PH-2&3	42.65	168.01	210.66
3	STPS PH-4	75.87	97.58	173.45
4	SGTPS PH-1&2	57.18	132.34	189.52
5	SGTPS PH-3	38.37	80.01	118.37
6	SSTPP PH-1	157.45	301.57	459.02
7	SSTPP PH-2	165.18	318.13	483.31
	<b>Total Thermal</b>	<b>556.95</b>	<b>1122.36</b>	<b>1679.31</b>
8	Gandhi Sagar	1.94		1.94
9	Pench	3.42		3.42
10	Rajghat	1.86		1.86
11	Bargi	2.22		2.22
12	Bansagar PH-1,2&3	18.94		18.94
13	Bansagar PH-4	1.18		1.18
14	Birsinghpur	0.76		0.76
15	Madhikheda	2.35		2.35
	<b>Total Hydro</b>	<b>32.66</b>		<b>32.66</b>
	<b>Total</b>	<b>589.61</b>	<b>1122.36</b>	<b>1711.97</b>

S. No.	Power Station	FY 2023-24		
		45 days Fixed Charges	45 days Energy Charges	Receivables 45 days
1	ATPS PH-3	20.11	24.73	44.84
2	STPS PH-2&3	43.71	168.01	211.71
3	STPS PH-4	74.26	97.58	171.84
4	SGTPS PH-1&2	56.19	132.34	188.53
5	SGTPS PH-3	38.03	80.01	118.04
6	SSTPP PH-1	153.30	301.57	454.87
7	SSTPP PH-2	161.58	318.13	479.71
	<b>Total Thermal</b>	<b>547.19</b>	<b>1122.36</b>	<b>1669.54</b>
8	Gandhi Sagar	2.00		2.00
9	Pench	3.50		3.50
10	Rajghat	1.88		1.88
11	Bargi	2.26		2.26
12	Bansagar PH-1,2&3	19.12		19.12
13	Bansagar PH-4	1.18		1.18
14	Birsinghpur	0.77		0.77
15	Madhikheda	2.33		2.33
	<b>Total Hydro</b>	<b>33.04</b>		<b>33.04</b>
	<b>Total</b>	<b>580.22</b>	<b>1122.36</b>	<b>1702.58</b>

110. Further, with regard to the rate of interest on working capital, Regulation 38.3 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 provides as under:

*“38.3 “Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1<sup>st</sup> April of the year during the tariff period 2019-20 to 2023-24 in which the generating station or a unit thereof, is declared under commercial operation, whichever is later.”*

*Further, Regulation 3.1(7) provides as under:*

*“” ‘Bank Rate’ means the one-year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points*

111. The petitioner has claimed rate of interest on working capital for the control period as given below:

**Table 31: Rate of Interest on Working Capital claimed (%)**

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Interest on allowed Working Capital	11.55%	11.55%	11.55%	11.55%	11.55%

112. In line with Regulation 38.3 of the Tariff Regulations, the rate of interest on working capital shall be considered the bank rate as on 01.04.2019 or as on 1<sup>st</sup> April of the year during the tariff period 2019-20 to 2023-24. Further, the Bank Rate’ means the one-year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points.
113. Considering that the one-year SBI MCLR as on 01.04.2019 is 8.55% plus 350 bps, the interest on working capital is worked out as 12.05%. Further, the aforesaid rate of interest is subject to truing up based on 1 year SBI MCLR as on 1<sup>st</sup> April of the respective financial years. The one year SBI MCLR as on 1.4.2020 (i.e. 7.75%) is available, therefore, the Commission has considered the rate of interest on working capital for the period from 1.4.2020 to 31.3.2024 as 11.25% (i.e. 1 year SBI MCLR of 7.75% as on 1.4.2020 + 350 bps) as filed by the petitioner. Accordingly, the interest on working capital has been considered as 12.05% for 2019-20 and 11.25% for the balance period from 2020-21 to 2023-24



114. Accordingly, the power station-wise interest on working capital for the control period FY 2019-20 to FY 2023-24 is worked out as given below:

**Table 32: Interest on working capital allowed**

**ATPS PH-III**

(Rs. in Crores)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Cost of Coal	32.82	32.82	32.82	32.82	32.82
Cost of Secondary Fuel Oil	0.69	0.69	0.69	0.69	0.69
Operation & Maintenance	4.95	5.13	5.31	5.49	5.69
Maintenance Spares	11.89	12.30	12.73	13.18	13.65
Receivables	49.08	48.61	48.19	44.97	44.84
<b>Working Capital</b>	<b>99.43</b>	<b>99.55</b>	<b>99.74</b>	<b>97.16</b>	<b>97.68</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>11.98</b>	<b>11.20</b>	<b>11.22</b>	<b>10.93</b>	<b>10.99</b>

**STPS PH-II&III**

(Rs. in Crores)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Cost of Coal	221.03	221.03	221.03	221.03	221.03
Cost of Secondary Fuel Oil	6.54	6.54	6.54	6.54	6.54
Operation & Maintenance	19.57	20.26	20.97	21.71	22.47
Maintenance Spares	46.98	48.62	50.33	52.11	53.93
Receivables	207.74	208.41	209.51	210.66	211.71
<b>Working Capital</b>	<b>501.86</b>	<b>504.86</b>	<b>508.38</b>	<b>512.05</b>	<b>515.69</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>60.47</b>	<b>56.80</b>	<b>57.19</b>	<b>57.61</b>	<b>58.02</b>

**STPS PH-IV**

(Rs. in Crores)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Cost of Coal	130.87	130.87	130.87	130.87	130.87
Cost of Secondary Fuel Oil	1.37	1.37	1.37	1.37	1.37
Operation & Maintenance	13.73	14.22	14.71	15.23	15.77
Maintenance Spares	32.96	34.12	35.31	36.56	37.84
Receivables	177.96	176.34	174.88	173.45	171.84

<b>Working Capital</b>	<b>356.89</b>	<b>356.92</b>	<b>357.14</b>	<b>357.49</b>	<b>357.69</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>43.01</b>	<b>40.15</b>	<b>40.18</b>	<b>40.22</b>	<b>40.24</b>

**SGTPS PH-I&II**

(Rs. in Crores)

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Cost of Coal	174.28	174.28	174.28	174.28	174.28
Cost of Secondary Fuel Oil	4.70	4.70	4.70	4.70	4.70
Operation & Maintenance	19.81	20.50	21.22	21.97	22.74
Maintenance Spares	47.54	49.21	50.94	52.74	54.58
Receivables	186.45	187.24	188.36	189.52	188.53
<b>Working Capital</b>	<b>432.78</b>	<b>435.93</b>	<b>439.49</b>	<b>443.20</b>	<b>444.83</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>52.15</b>	<b>49.04</b>	<b>49.44</b>	<b>49.86</b>	<b>50.04</b>

**SGTPS PH-III**

(Rs. in Crores)

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Cost of Coal	106.96	106.96	106.96	106.96	106.96
Cost of Secondary Fuel Oil	1.38	1.38	1.38	1.38	1.38
Operation & Maintenance	9.47	9.80	10.14	10.50	10.87
Maintenance Spares	22.72	23.52	24.34	25.20	26.08
Receivables	128.09	126.65	118.62	118.37	118.04
<b>Working Capital</b>	<b>268.60</b>	<b>268.30</b>	<b>261.43</b>	<b>262.41</b>	<b>263.32</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>32.37</b>	<b>30.18</b>	<b>29.41</b>	<b>29.52</b>	<b>29.62</b>

**SSTPP PH-I**

(Rs. in Crores)

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Cost of Coal	405.26	405.26	405.26	405.26	405.26
Cost of Secondary Fuel Oil	3.26	3.26	3.26	3.26	3.26
Operation & Maintenance	20.26	20.97	21.71	22.47	23.26
Maintenance Spares	48.62	50.33	52.10	53.93	55.82
Receivables	470.93	466.60	462.79	459.02	454.87
<b>Working Capital</b>	<b>948.34</b>	<b>946.42</b>	<b>945.13</b>	<b>943.94</b>	<b>942.47</b>

Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>114.27</b>	<b>106.47</b>	<b>106.33</b>	<b>106.19</b>	<b>106.03</b>

**SSTPP PH-2****(Rs. in Crores)**

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Cost of Coal	427.86	427.86	427.86	427.86	427.86
Cost of Secondary Fuel Oil	3.22	3.22	3.22	3.22	3.22
Operation & Maintenance	22.29	23.07	23.88	24.72	25.59
Maintenance Spares	53.49	55.36	57.31	59.32	61.41
Receivables	493.55	489.75	486.52	483.31	479.71
<b>Working Capital</b>	<b>1000.41</b>	<b>999.26</b>	<b>998.79</b>	<b>998.43</b>	<b>997.78</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>120.55</b>	<b>112.42</b>	<b>112.36</b>	<b>112.32</b>	<b>112.25</b>

**Gandhi Sagar****(Rs. in Crores)**

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Receivables	1.76	1.81	1.88	1.94	2.00
Operation & Maintenance	1.09	1.13	1.17	1.21	1.25
Maintenance Spares	1.96	2.03	2.10	2.17	2.25
<b>Working Capital</b>	<b>4.80</b>	<b>4.96</b>	<b>5.14</b>	<b>5.31</b>	<b>5.49</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>0.58</b>	<b>0.56</b>	<b>0.58</b>	<b>0.60</b>	<b>0.62</b>

**Pench****(Rs. in Crores)**

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Receivables	3.17	3.25	3.34	3.42	3.50
Operation & Maintenance	1.51	1.57	1.62	1.68	1.74
Maintenance Spares	2.72	2.82	2.92	3.02	3.12
<b>Working Capital</b>	<b>7.40</b>	<b>7.63</b>	<b>7.88</b>	<b>8.12</b>	<b>8.36</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>0.89</b>	<b>0.86</b>	<b>0.89</b>	<b>0.91</b>	<b>0.94</b>

**Rajghat****(Rs. in Crores)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Receivables	1.79	1.81	1.83	1.86	1.88
Operation & Maintenance	0.43	0.44	0.46	0.47	0.49
Maintenance Spares	0.77	0.79	0.82	0.85	0.88
<b>Working Capital</b>	<b>2.98</b>	<b>3.04</b>	<b>3.11</b>	<b>3.18</b>	<b>3.25</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>0.36</b>	<b>0.34</b>	<b>0.35</b>	<b>0.36</b>	<b>0.37</b>

**Bargi****(Rs. in Crores)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Receivables	2.07	2.12	2.17	2.22	2.26
Operation & Maintenance	0.85	0.88	0.91	0.94	0.98
Maintenance Spares	1.53	1.58	1.64	1.70	1.76
<b>Working Capital</b>	<b>4.46</b>	<b>4.59</b>	<b>4.72</b>	<b>4.86</b>	<b>5.00</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>0.54</b>	<b>0.52</b>	<b>0.53</b>	<b>0.55</b>	<b>0.56</b>

**Bansagar PH-I, II&III****(Rs. in Crores)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Receivables	18.28	18.51	18.72	18.94	19.12
Operation & Maintenance	3.83	3.96	4.10	4.25	4.39
Maintenance Spares	6.89	7.13	7.39	7.64	7.91
<b>Working Capital</b>	<b>28.99</b>	<b>29.60</b>	<b>30.22</b>	<b>30.83</b>	<b>31.42</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>3.49</b>	<b>3.33</b>	<b>3.40</b>	<b>3.47</b>	<b>3.54</b>

**Bansagar PH-IV (Jhinna)****(Rs. in Crores)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Receivables	1.15	1.16	1.17	1.18	1.18
Operation & Maintenance	0.19	0.20	0.20	0.21	0.22

Maintenance Spares	0.34	0.35	0.36	0.38	0.39
<b>Working Capital</b>	<b>1.68</b>	<b>1.70</b>	<b>1.73</b>	<b>1.76</b>	<b>1.79</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>0.20</b>	<b>0.19</b>	<b>0.19</b>	<b>0.20</b>	<b>0.20</b>

**Madhikheda**

(Rs. in Crores)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Receivables	3.55	2.38	2.36	2.35	2.33
Operation & Maintenance	0.57	0.59	0.61	0.63	0.65
Maintenance Spares	1.02	1.06	1.09	1.13	1.17
<b>Working Capital</b>	<b>5.14</b>	<b>4.02</b>	<b>4.07</b>	<b>4.11</b>	<b>4.15</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>0.62</b>	<b>0.45</b>	<b>0.46</b>	<b>0.46</b>	<b>0.47</b>

**Birsinghpur**

(Rs. in Crores)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Receivables	0.73	0.74	0.75	0.76	0.77
Operation & Maintenance	0.19	0.20	0.20	0.21	0.22
Maintenance Spares	0.34	0.35	0.36	0.38	0.39
<b>Working Capital</b>	<b>1.25</b>	<b>1.28</b>	<b>1.31</b>	<b>1.35</b>	<b>1.37</b>
Bank Rate	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>0.15</b>	<b>0.14</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>

115. Based on above, the summary of Interest on working capital allowed for the control period FY 2019-20 to FY 2023-24 is as given below:

**Table 33: Summary of Interest on Working capital Considered**

(Rs in Crore)

Sr no	Power Stations	Interest on Working Capital Allowed				
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	ATPS, Chachai PH-3	11.98	11.20	11.22	10.93	10.99
2	STPS PH-2&3	60.47	56.80	57.19	57.61	58.02
3	STPS, Sarni PH-4	43.01	40.15	40.18	40.22	40.24
4	SGTPS, PH-1&2	52.15	49.04	49.44	49.86	50.04
5	SGTPS, Birsinghpur PH-3	32.37	30.18	29.41	29.52	29.62

6	SSTPS PH-1	114.27	106.47	106.33	106.19	106.03
7	SSTPS PH-2	120.55	112.42	112.36	112.32	112.25
	<b>Thermal</b>	<b>434.80</b>	<b>406.26</b>	<b>406.14</b>	<b>406.65</b>	<b>407.19</b>
8	Gandhi Sagar	0.58	0.56	0.58	0.60	0.62
9	Pench	0.89	0.86	0.89	0.91	0.94
10	Rajghat	0.36	0.34	0.35	0.36	0.37
11	Bargi	0.54	0.52	0.53	0.55	0.56
12	Bansagar (1,2&3)	3.49	3.33	3.40	3.47	3.54
13	Bansagar-4, Jhinna	0.20	0.19	0.19	0.20	0.20
14	Birsinghpur	0.15	0.14	0.15	0.15	0.15
15	Madhikheda	0.62	0.45	0.46	0.46	0.47
	<b>Hydel</b>	<b>6.83</b>	<b>6.39</b>	<b>6.55</b>	<b>6.70</b>	<b>6.84</b>
	<b>Total</b>	<b>441.63</b>	<b>412.66</b>	<b>412.68</b>	<b>413.35</b>	<b>414.03</b>

## Non-Tariff Income

### Provisions in Regulation:

116. Regulation 58.1 of the MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 provides that

*58.1 "The non-tariff net income in case of generating station on account of following shall be shared in the ratio of 50:50 with the beneficiaries and the generating company on annual basis:*

- a) Income from rent of land or buildings;*
- b) Income from sale of scrap;*
- c) Income from sale of fly ash;*
- d) Interest on advances to suppliers or contractors;*
- e) Rental from staff quarters;*
- f) Rental from contractors;*
- g) Income from advertisements; and*
- h) Interest on investments and bank balances:*

*Provided that the interest or dividend earned from investments made out of Return on Equity corresponding to the regulated business of the Generating Company shall not be included in Non-Tariff Income:*

*Provided further that the Generation Company shall submit full details of its*

*forecast of Non-Tariff Income to the Commission. Non-tariff income shall also be trued-up based on audited accounts.”*

117. The aforesaid Regulation provides that the Generating Company shall submit full details of its forecast of Non-Tariff Income to the Commission. On perusal of the petition, it was observed that the petitioner has not filed projected non-tariff income for the control period. Vide Commission's letter dated 9<sup>th</sup> October' 2020, the petitioner was asked to file projected non-tariff/other income during the control period FY 2019-20 to FY 2023-24 in accordance to the Regulation 58.1 of MPERC Generation Tariff Regulations, 2020.

118. In response to above, vide affidavit dated 30<sup>th</sup> December' 2020, the petitioner submitted that:

*In this regards, MPPGCL wishes to submit that the Power House wise Projection for Non-Tariff income cannot be worked out at this point of time, as the items covered under such head are not persistent in nature and keeps on varying randomly.*

*Further, the MPERC regulations 2020 also provides for sharing of Non- Tariff income with beneficiary on 50:50 basis. The same can practically be done on availability of actual figures.*

*Accordingly, the Financial Years break up of Non tariff income pertaining to Control Period FY 2019-20 to FY 2023-24 as per Tariff Regulation,2020 shall be submitted before Commission in the True up Tariff petitions for respective Financial Years on actual basis*

119. Since, the petitioner has not submitted any details regarding non-tariff income, hence, the Commission has not considered any non-tariff income in this order. The petitioner is directed to file the details of actual non-tariff income in the true up tariff petitions for respective years based on the Annual Audited Accounts.

### **Normative Annual Plant Availability Factor**

120. Normative Annual Plant Availability Factor (NAPAF) for thermal and hydel power stations as per the Regulations, 2020 shall be considered for recovery of full capacity charges. The details of power station-wise NAPAF as per Regulations, 2020 for the control period FY 2019-20 to FY 2023-24 are as given below :



**Table 34: Normative Annual Plant Availability Factor (%)**

S. No	Power Station	NAPAF for FY 2019-20 to FY 2023-24
<b>Thermal Power Stations</b>		
1	ATPS PH-3	85
2	STPS PH-2&3	70
3	STPS PH-4	85
4	SGTPS PH-1&2	75
5	SGTPS PH-3	85
6	SSTPS PH-1	85
7	SSTPS PH-2	85
<b>Hydel Power Stations</b>		
8	Gandhi Sagar	85
9	Pench	85
10	Rajghat	60
11	Bargi	85
12	Bansagar Complex (excluding silpara)	85
13	Silpara	90
14	Madhikheda	85
15	Birsinghpur	85

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

121. 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 35: Summary of Power Station-Wise Annual Capacity (fixed) Charges****ATPS PH-III****(Rs in Crores)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Return on Equity	39.78	39.78	39.78	39.78	39.78
Interest on Loan	36.08	30.47	24.86	20.56	17.57
Depreciation	50.79	50.79	50.79	27.03	27.03

Interest on Working Capital	11.98	11.20	11.22	10.93	10.99
O & M Expenses	59.43	61.51	63.67	65.92	68.23
<b>Total AFC</b>	<b>198.06</b>	<b>193.75</b>	<b>190.32</b>	<b>164.21</b>	<b>163.59</b>

**STPS PH-II&III****(Rs in Crores)**

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Return on Equity	27.79	27.79	27.79	27.79	27.79
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	60.47	56.80	57.19	57.61	58.02
O & M Expenses	234.89	243.11	251.66	260.54	269.67
Special Allowance	78.85	78.85	78.85	78.85	78.85
<b>Total AFC</b>	<b>402.00</b>	<b>406.54</b>	<b>415.49</b>	<b>424.78</b>	<b>434.32</b>

**STPS PH-IV****(Rs in Crores)**

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Return on Equity	100.02	100.02	100.02	100.02	100.02
Interest on Loan	180.00	162.15	144.30	126.45	108.60
Depreciation	165.93	165.93	165.93	165.93	165.93
Interest on Working Capital	43.01	40.15	40.18	40.22	40.24
O & M Expenses	164.8	170.6	176.55	182.80	189.20
<b>Total AFC</b>	<b>653.75</b>	<b>638.85</b>	<b>626.97</b>	<b>615.41</b>	<b>603.99</b>

**SGTPS PH-I&II****(Rs in Crores)**

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Return on Equity	101.54	101.54	101.54	101.54	101.54
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	48.74	48.74	48.74	48.74	32.53
Interest on Working Capital	52.15	49.04	49.44	49.86	50.04
O & M Expenses	237.72	246.04	254.69	263.68	272.92
<b>Total AFC</b>	<b>440.15</b>	<b>445.35</b>	<b>454.41</b>	<b>463.81</b>	<b>457.03</b>

**SGTPS PH-III****(Rs in Crores)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Return on Equity	89.88	89.88	89.88	89.88	89.88
Interest on Loan	51.66	37.15	26.70	20.33	13.96
Depreciation	103.53	103.53	45.46	45.46	45.46
Interest on Working Capital	32.37	30.18	29.41	29.52	29.62
O & M Expenses	113.60	117.60	121.70	126.00	130.40
<b>Total AFC</b>	<b>391.03</b>	<b>378.33</b>	<b>313.15</b>	<b>311.19</b>	<b>309.32</b>

**SSTPP PH-I****(Rs in Crores)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Return on Equity	218.79	218.79	218.79	218.79	218.79
Interest on Loan	433.07	393.48	353.88	314.28	274.69
Depreciation	368.22	368.22	368.22	368.22	368.22
Interest on Working Capital	114.27	106.47	106.33	106.19	106.03
O & M Expenses	243.12	251.64	260.52	269.64	279.12
<b>Total AFC</b>	<b>1377.48</b>	<b>1338.60</b>	<b>1307.74</b>	<b>1277.13</b>	<b>1246.84</b>

**SSTPP PH-2****(Rs in Crores)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Return on Equity	149.85	149.85	149.85	149.85	149.85
Interest on Loan	556.92	520.95	484.98	449.01	413.04
Depreciation	332.02	332.02	332.02	332.02	332.02
Interest on Working Capital	120.55	112.42	112.36	112.32	112.25
O & M Expenses	267.43	276.80	286.57	296.60	307.03
<b>Total AFC</b>	<b>1426.77</b>	<b>1392.04</b>	<b>1365.78</b>	<b>1339.80</b>	<b>1314.19</b>

**Gandhi Sagar****(Rs in Crores)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Return on Equity	0.56	0.56	0.56	0.56	0.56

Interest on Loan	0.06	0.06	0.05	0.04	0.04
Depreciation	0.04	0.04	0.04	0.04	0.04
Interest on Working Capital	0.58	0.56	0.58	0.60	0.62
O & M Expenses	13.04	13.50	13.98	14.47	14.97
<b>Total AFC</b>	<b>14.28</b>	<b>14.71</b>	<b>15.21</b>	<b>15.71</b>	<b>16.23</b>

**Pench****(Rs in Crores)**

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Return on Equity	5.12	5.12	5.12	5.12	5.12
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	1.59	1.59	1.59	1.59	1.59
Interest on Working Capital	0.89	0.86	0.89	0.91	0.94
O & M Expenses	18.14	18.78	19.46	20.13	20.83
<b>Total AFC</b>	<b>25.75</b>	<b>26.36</b>	<b>27.06</b>	<b>27.76</b>	<b>28.49</b>

**Rajghat****(Rs in Crores)**

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Return on Equity	4.45	4.45	4.45	4.45	4.45
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	4.62	4.62	4.62	4.62	4.62
Interest on Working Capital	0.36	0.34	0.35	0.36	0.37
O & M Expenses	5.10	5.28	5.47	5.66	5.86
<b>Total AFC</b>	<b>14.52</b>	<b>14.69</b>	<b>14.88</b>	<b>15.08</b>	<b>15.29</b>

**Bargi****(Rs in Crores)**

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>
Return on Equity	4.38	4.38	4.38	4.38	4.38
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	1.74	1.74	1.74	1.74	1.74
Interest on Working Capital	0.54	0.52	0.53	0.55	0.56
O & M Expenses	10.21	10.57	10.94	11.32	11.72
<b>Total AFC</b>	<b>16.87</b>	<b>17.21</b>	<b>17.60</b>	<b>17.99</b>	<b>18.40</b>

**Bansagar PH-I, II & III****(Rs in Crores)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Return on Equity	58.27	58.27	58.27	58.27	58.27
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	40.96	40.96	40.96	40.96	40.96
Interest on Working Capital	3.49	3.33	3.40	3.47	3.54
O & M Expenses	45.93	47.55	49.25	50.95	52.73
<b>Total AFC</b>	<b>148.65</b>	<b>150.11</b>	<b>151.88</b>	<b>153.65</b>	<b>155.50</b>

**Bansagar PH-IV (Jhinna)****(Rs in Crores)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Return on Equity	5.78	5.78	5.78	5.78	5.78
Interest on Loan	0.05	0.00	0.00	0.00	0.00
Depreciation	1.05	1.05	1.05	1.05	1.05
Interest on Working Capital	0.20	0.19	0.19	0.20	0.20
O & M Expenses	2.27	2.35	2.43	2.52	2.60
<b>Total AFC</b>	<b>9.35</b>	<b>9.37</b>	<b>9.46</b>	<b>9.54</b>	<b>9.63</b>

**Madhikheda****(Rs in Crores)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Return on Equity	7.63	7.63	7.63	7.63	7.63
Interest on Loan	2.46	1.48	1.10	0.72	0.35
Depreciation	11.36	2.68	2.68	2.68	2.68
Interest on Working Capital	0.62	0.45	0.46	0.46	0.47
O & M Expenses	6.80	7.04	7.30	7.55	7.81
<b>Total AFC</b>	<b>28.87</b>	<b>19.29</b>	<b>19.17</b>	<b>19.05</b>	<b>18.94</b>

**Birsinghpur**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Return on Equity	2.58	2.58	2.58	2.58	2.58
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	0.90	0.90	0.90	0.90	0.90
Interest on Working Capital	0.15	0.14	0.15	0.15	0.15
O & M Expenses	2.27	2.35	2.43	2.52	2.60
<b>Total AFC</b>	<b>5.90</b>	<b>5.97</b>	<b>6.06</b>	<b>6.15</b>	<b>6.24</b>

**Table 36: Head Wise Total Annual Capacity (fixed) Charges**

S. No.	Particulars	AFC Allowed (Rs in Crore)				
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	Return on Equity	816.42	816.42	816.42	816.42	816.42
2	Interest on Loan	1260.30	1145.72	1035.86	931.39	828.23
3	Depreciation	1131.48	1122.81	1064.75	1040.98	1024.78
4	O&M Expenses	1424.75	1474.72	1526.62	1580.28	1635.70
6	Special Allowance	78.85	78.85	78.85	78.85	78.85
7	Interest on Working Capital	441.63	412.66	412.68	413.35	414.03
<b>Total Capacity (fixed) Charges</b>		<b>5153.43</b>	<b>5051.17</b>	<b>4935.18</b>	<b>4861.27</b>	<b>4798.01</b>

**Table 37: Power Station wise Annual Capacity (fixed) Charges (Rs in Crore)**

Sr no	Power Stations	AFC Allowed				
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	ATPS, Chachai PH-3	198.06	193.75	190.32	164.21	163.59
2	STPS PH-2&3	402.00	406.54	415.49	424.78	434.32
3	STPS, Sarni PH-4	653.75	638.85	626.97	615.41	603.99
4	SGTPS, PH-1&2	440.15	445.35	454.41	463.81	457.03
5	SGTPS, Birsing'pur PH-3	391.03	378.33	313.15	311.19	309.32
6	SSTPS PH-1	1377.48	1338.60	1307.74	1277.13	1246.84
7	SSTPS PH-2	1426.77	1392.04	1365.78	1339.80	1314.19
	<b>Thermal</b>	<b>4889.24</b>	<b>4793.46</b>	<b>4673.86</b>	<b>4596.34</b>	<b>4529.29</b>
8	Gandhi Sagar	14.28	14.71	15.21	15.71	16.23
9	Pench	25.75	26.36	27.06	27.76	28.49
10	Rajghat	14.52	14.69	14.88	15.08	15.29
11	Bargi	16.87	17.21	17.60	17.99	18.40
12	Bansagar (1,2&3)	148.65	150.11	151.88	153.65	155.50
13	Bansagar-4, Jhinna	9.35	9.37	9.46	9.54	9.63
14	Birsinghpur	5.90	5.97	6.06	6.15	6.24
15	Madhikheda	28.87	19.29	19.17	19.05	18.94
	<b>Hydel</b>	<b>264.19</b>	<b>257.71</b>	<b>261.32</b>	<b>264.93</b>	<b>268.72</b>
<b>Total</b>		<b>5153.43</b>	<b>5051.17</b>	<b>4935.18</b>	<b>4861.27</b>	<b>4798.01</b>

122. The aforesaid Annual Capacity Charges have been computed based on norms specified under the Regulations, 2020. The recovery of Annual Capacity (Fixed) charges shall be made by the petitioner in accordance with Regulation 42 of the Regulations, 2020.

123. Regulation 7.11 of the Regulations, 2020 provides as under:

*In case of the existing projects, the generating company shall continue to bill provisionally the beneficiaries at the capacity charges as approved by the Commission and applicable as on 31.03.2019 for the period starting from 01.04.2019 till approval of final capacity charges in accordance with these Regulations:*

*Provided that the billing for energy charges w.e.f 01.04.2019 shall be as per the operational norms specified in these Regulations:*

*Provided further that the difference between the tariff above provisional bills raised by the generating company to beneficiary and the tariff determined by the Commission in accordance with these Regulations, shall be recovered or refunded to, the beneficiary with simple interest at the rate equal to the bank rate prevailing as on 1<sup>st</sup> April of the respective year of the tariff period, in six equal monthly installments.*

124. The Capacity Charges determined by the Commission in this order shall be recovered or refunded in accordance with the aforesaid Regulation, in six equal monthly installments.

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

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

125. While claiming the Energy charges for the control period, the petitioner considered parameters like Gross Station Heat Rate, Auxiliary Energy Consumption, Specific fuel oil consumption, transit loss for FY 2019-20 to FY 2023-24 based on the provisions under MPERC (Terms and conditions for Determination of Generation Tariff) Regulations, 2020. The details of the power station-wise Energy Charges claimed by the petitioner is as given below:



Table 38: Energy Charges claimed in the petition (in Rs/ KWh)

Thermal Power Station	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
ATPS PH-3	1.622	1.622	1.622	1.622	1.622
STPS PH-2&3	3.239	3.239	3.239	3.239	3.239
STPS PH-4	2.459	2.459	2.459	2.459	2.459
SGTPS PH-1&2	2.200	2.200	2.200	2.200	2.200
SGTPS PH-3	1.901	1.901	1.901	1.901	1.901
SSTPP PH-1	2.823	2.823	2.823	2.823	2.823
SSTPP PH-2	2.922	2.922	2.922	2.922	2.922

**Provisions in Regulation:**

126. For determining the energy charges (variable charges) of thermal power stations, Regulation 18 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulation, 2020 provides that,

*Energy charges shall be derived on the basis of the Landed Fuel Cost (LFC) of a generating station (excluding hydro) and shall consist of the following cost:*

- (a) Landed Fuel Cost of primary fuel; and*
- (b) Cost of secondary fuel oil consumption*
- (c) Cost of Lime-stone or any other regent as applicable*

127. Regulation 43.1 and 43.2 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulation, 2020, further provides that:

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

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

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

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

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = Weighted Average Gross calorific value of coal as received, in kCal per kg less 85 Kcal/kg on account of variation during storage at generating station:

Provided that, in case of blending of coal from different sources, the weighted average Gross Calorific Value of coal (primary fuel) shall be arrived in proportion to blending ratio.

CVSF = Calorific value of secondary fuel, in kCal per ml.

ECR = Energy charge rate, in Rupees per kWh sent out.

SHR = Gross station heat rate, in kCal per kWh.

LPPF = Weighted average landed price of coal (primary fuel), in Rupees per kg, during the month. (In case of blending of coal from different sources, the weighted average landed price of coal shall be arrived in proportion to blending ratio).

SFC = Normative Specific fuel oil consumption, in ml per kWh.

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

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

128. MPERC Tariff Regulations, 2020 provides that the energy (variable) charges shall cover both primary and secondary fuel costs and shall be payable during the calendar month for the scheduled energy on ex-power plant basis.
129. In order to determine the energy charges of thermal power station, the operating parameters like gross station heat rate, auxiliary energy consumption, secondary fuel oil consumption and plant availability factor need to be examined as per provisions under the Regulations, 2020

**Operating Parameters:-**

**Gross Station Heat Rate**

130. Regulations 49.2(b) of the Regulations, 2020 specified the norms for Gross Station Heat Rate for existing thermal power stations commissioned on or before 31<sup>st</sup> March, 2012.
131. With regard to Gross Station Heat Rate of existing coal based thermal generating Units/ stations for all capacities which have achieved COD on or after 01/04/2012, Regulation 49.3 (C) of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 provides the following;
- (i) *Existing Coal-based thermal generating stations having CoD on or after 1.4.2012 till 31.03.2016, (other than those covered under Regulation 49.2), the station heat rate norms shall be as already approved by the Commission.*
- (ii) *Existing Coal based thermal generating stations having CoD on or after 1.4.2016 till 31.3.2019, the station heat rate for the control period FY 2019-20 to FY 2023-24 shall be as given below:*
- Station Heat Rate = 1.05 X Design Heat Rate (kCal/kWh).*
132. For power stations commissioned prior to 1.4.2012, the norms for station heat rate specified under the Regulation 49.2 (b) has been considered during the control period FY 2019-20 to FY 2023-24 for determination of energy charges. The generating units of ATPS PH-III, STPS PH-II&III and SGTPS PH-I, II & III are commissioned prior to 01.04.2012 and covered under this category therefore, the norms for station heat rate for these thermal power stations is considered in accordance to Regulation 49.2(b) of the Regulations, 2020 in this order.
133. Regulation 49.3 (C) (i) provides that the existing Coal-based thermal generating stations having CoD on or after 1.4.2012 till 31.03.2016, the station heat rate norms shall be as already approved by the Commission. The generating units of STPS PH-4 (Unit 10 & 11) achieved COD on 18.08.2013 and 16.03.2014 respectively and the Commission issued final order for STPS PH-4 on 7<sup>th</sup>

January, 2016. Further, Units of SSTPP PH-I achieved COD on 01.02.2014 & 28.12.2014 respectively and the Commission issued final tariff order for SSTPP PH-1 on 30<sup>th</sup> December' 2017. The norm for Station Heat Rate approved by the Commission in the aforesaid final tariff orders is considered during the control period FY 2019-20 to FY 2023-24 in this order.

134. Regulation 49.3 (C) (ii) mentioned that the existing Coal based thermal generating stations having CoD on or after 1.4.2016 till 31.3.2019, the station heat rate for the control period FY 2019-20 to FY 2023-24 shall be as given below:

$$\text{Station Heat Rate} = 1.05 \times \text{Design Heat Rate (kCal/kWh)}.$$

135. The Units of SSTPP PH-2 (Unit No 3&4) achieved COD on 18<sup>th</sup> November' 2018 and 27<sup>th</sup> March' 2019, respectively. The Commission issued final order for SSTPP PH-2 for Unit 3 and Unit 4. The norm for Station Heat Rate approved by the Commission in the aforesaid final tariff order in accordance to the aforesaid Regulation is considered during the control period FY 2019-20 to FY 2023-24 in this order.
136. In view of the above, the power station-wise normative Station Heat Rate considered in this order is as follows:

#### Station Heat Rate

Thermal Power Station	Station Heat Rate (kCal/kWh)
ATPS PH-3	2450
STPS PH-2&3	2850
STPS PH-4	2400
SGTPS PH-1&2	2700
SGTPS PH-3	2390
SSTPP PH-1	2384
SSTPP PH-2	2175

#### Auxiliary Energy Consumption

137. With regards to auxiliary energy consumption of existing thermal power stations commissioned prior to 1.4.2012, the norms fixed under the Regulation 49.2 (d) of

the Regulations, 2020 are considered. The generating units of ATPS PH-III, STPS PH-II&III and SGTPS PH-I, II&III are commissioned prior to 01.04.2012 and covered under this category therefore, the norms for Auxiliary Energy Consumption for these thermal power stations is considered in accordance to Regulation 49.2(d) of the Regulations, 2020 in this order.

138. Further, Regulation 49.3 (E) of the Regulations, 2020 specified the following norms for coal based thermal generating Units/ stations for all capacities which have achieved COD on or after 01/04/2012.

#### Auxiliary Energy Consumption

Sr. No.	Power Station	With Natural Draft Cooling Tower or without Cooling Tower
(1)	200 MW series	8.50%
(2)	300 MW and above	
	Steam driven boiler feed pumps	5.75 %
	Electrically driven boiler feed pumps	8.00 %
(3)	45 MW Series	10.00 %

Provided that for thermal generating stations with induced drafts cooling towers, the norms shall be further increased by 0.5%:

139. The generating units of STPS PH-IV, SSTPP PH-I and SSTPP PH-II have achieved COD on or after 01.04.2012 and covered under this category therefore, the norms for Auxiliary Energy Consumption of these power stations are considered in accordance to aforesaid Regulation 49.3 E of the Regulations, 2020. The power station-wise normative Auxiliary Energy Consumption considered in this order is as follows:

Thermal Power Station	Auxiliary Energy Consumption (%)
ATPS PH-3	9.00%
STPS PH-2&3	10.00%
STPS PH-4	8.50%
SGTPS PH-1&2	10.00%
SGTPS PH-3	5.75%
SSTPP PH-1	5.75%
SSTPP PH-2	5.75%

### Secondary Fuel Oil Consumption

140. With regards to specific fuel oil consumption of power stations commissioned prior to 1.4.2012, the norms fixed under the Regulation 49.2 (c) of Tariff Regulations, 2020 are considered for determination of energy charges. The generating units of ATPS PH-III, STPS PH-II&III and SGTPS PH-I, II&III are commissioned prior to 01.04.2012 and covered under this category. Therefore, the norms for specific secondary fuel oil consumption for these thermal power stations is considered in accordance to Regulation 49.2(c) of the Regulations, 2020 in this order.
141. With regards to specific fuel oil consumption for other coal based thermal generating Units/ stations for all capacities which have achieved COD on or after 01/04/2012, the norms for specific secondary consumption specified under the Regulation 49.3 (D) of Tariff Regulations, 2020 are as given below:

Coal-based generating stations: 0.50 ml/kWh

142. The generating units of STPS PH-IV, SSTPP PH-I and SSTPP PH-II have achieved COD after 01.04.2012 and covered under this category therefore, the norms for specific secondary fuel oil consumption of these power stations is considered in accordance to aforesaid Regulation 49.3 (D) of the Regulations, 2020. The power station-wise normative specific secondary fuel oil consumption considered in this order is as follows:

Thermal Power Station	Specific Secondary Fuel oil Consumption (ml/kWh)
ATPS PH-3	0.50 ml/kWh
STPS PH-2&3	1.75 ml/kWh
STPS PH-4	0.50 ml/kWh
SGTPS PH-1&2	1.15 ml/kWh
SGTPS PH-3	0.50 ml/kWh
SSTPP PH-1	0.50 ml/kWh
SSTPP PH-2	0.50 ml/kWh

**Transit and handling losses:**

143. Regulation 45 of the Regulations, 2020 specified the norms for transit and handling losses as under:

For coal, the transit and handling losses shall be as per the following norms:-

<b>Thermal Generating Station</b>	<b>Transit and Handling Loss (%)</b>
Pit head	0.20%
Non-pit head	0.80%

*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 and handling losses applicable for non-pit head station shall apply;*

*Provided further that in case of imported coal, the transit and handling losses applicable for pit-head station shall apply.*

144. Since all the MPPGCL's coal based thermal power stations are non-pit head power stations, therefore, the norms for transit losses of 0.80% is considered as per the Regulation, 2020.
145. In view of above the details of the operating norms for thermal power stations as considered above in accordance to Regulations, 2020 for the control period FY 2019-20 to FY 2023-24 are summarized as below:

**Table 39: Norms for Operating Parameters**

Operating Parameters	Unit	Norms for Operating Parameters						
		ATPS PH-3	STPS PH-2&3	STPS PH-4	SGTPS PH-1&2	SGTPS PH-3	SSTPS PH-1	SSTPS PH-2
Gross Station Heat Rate	kCal/kWh	2450	2850	2400	2700	2390	2384	2175
Aux. Energy consumption	%	9.00	10.00	8.50	10.00	5.75	5.75	5.75
Sp. fuel oil consumption	ml/kWh	0.50	1.75	0.50	1.15	0.50	0.50	0.50
Transit Loss	%	0.80	0.80	0.80	0.80	0.80	0.80	0.80



**Gross Calorific Value of coal:**

146. Regarding the Gross Calorific Value (GCV) of Coal, Regulation 43.4 of the Regulations, 2020 provided as under:

*“The generating company shall provide to the beneficiaries of the generating station the details of parameters of GCV and price of coal 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 the weighted average GCV of the coal as received shall also be provided separately, along with the bills of the respective month:*

*Provided further that copies of the bills and details of parameters of GCV and price of coal 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 on monthly basis.*

147. With regard to GCV of coal for Coal based Thermal Power Stations, Regulation 43.2 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020, provides that weighted average gross calorific value of coal “as received”, in kCal per kg less 85 Kcal/kg on account of variation during storage at generating station shall be considered for determination of energy charges. The aforesaid Regulation further provides that in case of blending of coal from different sources, the weighted average Gross Calorific Value of coal (primary fuel) shall be arrived in proportion to blending ratio.
148. On scrutiny of the subject petition, the commission observed that the petitioner filed energy charges based on the weighted average GCV of coal on “As Received Basis” less 85 Kcal/kg on account of variation during storage at generating station for the months January’ 20, February’ 20 & March’ 20. However, Regulation 38.2 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020 provides as under:

*“The cost of fuel shall be based on the landed fuel cost incurred (taking into account normative transit and handling losses) by the generating station and gross calorific value of the fuel as per actual weight age average for the **three months preceding the first month for which tariff is to be determined.**”*

149. Hence, vide Commission’s letter dated 9<sup>th</sup> October’ 2020, the petitioner was asked to file the weighted average GCV of coal for three preceding months i.e. January, February and March’ 2019 as per Regulation 38.2 of the Tariff Regulation, 2020.
150. By affidavit dated 30<sup>th</sup> December’ 2020, the petitioner submitted the power station wise weighted average GCV of coal “As received basis” for the available three preceding months i.e. January to March, 2019, in terms of the Regulations, 2020. The petitioner also 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. Details of power station wise Gross Calorific Value of coal as filed by petitioner in its additional submission are as given below-

**Table 40 : Gross Calorific Value of coal: (Kcal/kg)**

Power Station	Jan-19	Feb-19	Mar-19	Wt. Avg. GCV of Coal
ATPS PH-3	4568	4351	4362	<b>4432</b>
STPS PH-2&3	3641	3775	3919	<b>3782</b>
STPS PH-4	3889	3793	3784	<b>3822</b>
SGTPS PH-1&2	3821	3881	3756	<b>3814</b>
SGTPS PH-3	3798	3972	3829	<b>3861</b>
SSTPP PH-1	3817	3788	3771	<b>3792</b>
SSTPP PH-2	3571	3595	3587	<b>3584</b>

151. On perusal of the aforesaid details filed by the petitioner, It is observed that the petitioner has not made adjustment in GCV as per the norms specified in Regulation 43.2 on account of variation during storage at generating station therefore, the weighted average GCV arrived in the aforesaid table has been reduced by 85kCal/kg on account of variation during storage at generating station in accordance with the Regulation 43.2 as given below:

**GCV of coal considered:****Kcal/kg**

<b>Power Station</b>	<b>Wt. Avg. GCV of Coal preceding three months</b>	<b>weighted average GCV less 85 Kcal/kg</b>
<b>ATPS PH-3</b>	4432	4347
<b>STPS PH-2&amp;3</b>	3782	3697
<b>STPS PH-4</b>	3822	3737
<b>SGTPS PH-1&amp;2</b>	3814	3729
<b>SGTPS PH-3</b>	3861	3776
<b>SSTPP PH-1</b>	3792	3707
<b>SSTPP PH-2</b>	3584	3499

152. Aforesaid Power station-wise weighted average gross calorific value of coal on “as received basis” as filed by the petitioner (reduced by 85kCal/kg) in line with the Regulation 43.2 is considered for the determination of Energy Charges in this order. The petitioner is directed to ensure the compliance of Regulation 43.4 of the Regulations, 2020.
153. The petitioner has filed Gross Calorific Value of secondary fuel oil of 10,000 Kcal/Ltr. in all the power stations. The same value of GCV of secondary fuel oil as filed by the petitioner is considered in this order for the control period FY 2019-20 to FY 2023-24.

**Landed Cost of Coal:**

154. The petitioner claimed weighted average landed cost of coal based on the landed cost of coal during three months i.e. January’ 2020, February’ 2020 to March’ 2020 worked out in form TPS 15 filed with the petition.
155. Regarding the landed cost of coal, Regulation 44.2 of the Regulations, 2020 provides as under:

*“The landed cost of coal for any month shall consist of base price of coal corresponding to the grade and quality of coal inclusive of statutory charges as applicable/allowed by the Commission, washery charges, if any, transportation cost by rail/ road or any other means, and loading, unloading and handling charges.*

*Provided that procurement of coal at a price other than Government notified prices may be considered, if it is based on competitive bidding through transparent process, for the purpose of landed coal cost: Provided further that landed cost of coal shall be worked out based on the actual bill paid by the generating company including any adjustment on account of quantity and quality:*

*Provided also that the Gross Calorific Value of coal shall be measured by third party sampling and the expenses towards the third-party sampling facility shall be reimbursed by the beneficiaries*

156. Further, Regulation 38.2 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020 provides as under:

*“The cost of fuel shall be based on the landed fuel cost incurred (taking into account normative transit and handling losses) by the generating station and gross calorific value of the fuel as per actual weight age average for the **three months preceding the first month for which tariff is to be determined** -----”*

157. In view of the above, vide letter dated 9<sup>th</sup> October’ 2020’ the petitioner was asked to file complete details of landed cost of coal for the preceding three months i.e. January, February and March’ 2019 in accordance to Regulations, 2020. The petitioner was also asked to explain the reasons for higher weighted average rate of coal for STPS and SSTPP claimed in the petition.
158. By affidavit dated 30<sup>th</sup> December’ 2020, the petitioner filed the landed cost of coal for preceding three months i.e., January’ 19 to March 2019, in terms of the Regulations, 2020 along with the copies of bills/invoices in this regard. Details of power station wise landed price of coal during Jan’19 to Mar’19 and power station wise weighted average rate of coal filed by petitioner in its additional submission are as given below:

**Table 41: Landed price of coal:-**

**Rs. /MT**

Power Station	Jan-19	Feb-19	Mar-19	Wt. Avg. Rate of Coal
ATPS PH-3	2414	2321	1947	2239

<b>STPS PH-2&amp;3</b>	3208	3366	3607	<b>3401</b>
<b>STPS PH-4</b>	3560	3167	3147	<b>3291</b>
<b>SGTPS PH-1&amp;2</b>	2706	2740	2474	<b>2628</b>
<b>SGTPS PH-3</b>	2776	2890	2551	<b>2729</b>
<b>SSTPP PH-1</b>	4204	4253	4266	<b>4240</b>
<b>SSTPP PH-2</b>	4159	4372	4122	<b>4211</b>

159. With regard to the reasons for the higher weighted average rate of coal in STPS & SSTPP, the petitioner vide affidavit dated 30<sup>th</sup> December' 2020 submitted the following:-

*The Reasons for higher weighted average rate of coal for STPS and SSTPP claimed in the petition are as under*

***SSTPP, Khandwa:-***

*In regard to higher Coal rates, it is to submit that the coal linkage for the power station is from long distant mines of South Eastern Coalfields Limited (SECL), Western Coalfield Limited (WCL) and Northern Coalfield Limited (NCL). However, In spite of the fact that the basic price of the coal supplied is less in comparison to the freight charges charged by Indian Railways, freight charges are substantially high for delivering it from various mines / Areas 900+ Km (SECL), 500+ Km (WCL) and 800+ Km (NCL) respectively. Further, the basic rate of coal for the same grade is higher for WCL than the other subsidiaries companies of Coal India Limited (CIL) and most of the coal of WCL is being received at SSTPP, Khandwa.*

*The Gol has issued directives, enabling Thermal Power Generating Companies for swapping the coal linkage between their thermal power stations. All out attempts are being made by MPPGCL for optimizing the landed coal rate and had succeeded to certain extent at SSTPP, Khandwa by way of swapping coal.*

***STPS, Sarni:-***

*In regard to higher Coal rates, it is to clarify that the basic rate of coal for the same grade is higher for WCL than the other subsidiaries companies of Coal India Limited (CIL). As STPS Sarni receives most of the coal from*

*WCL, its landed cost of Coal is higher than the cost at other Power Stations in spite of having lower Weighted Average GCV.*

*The copy of Coal price notification issued by CIL is annexed as Annex.-10.*

160. In view of the above, the power station-wise weighted average landed price of coal for preceding three months filed by the petitioner in its additional submission is considered for determination of energy charges in this order.
161. On further perusal of the details of landed cost of coal, 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.
162. Regulation 38.2 of the Regulations, 2020 provides that while determining the weighted average price of fuel, no fuel price escalation shall be provided during the tariff period. Therefore, the preceding three months weighted average rate of coal for respective power stations is considered for entire control period in this order.

**Landed cost of secondary fuel oil:**

163. The petitioner submitted that the landed cost of secondary fuel oil for determination of Energy charges are based on the weighted average cost of the preceding three months and in absence of these the last procurement price before the start of tariff period. The secondary fuel oil comprises of Furnace Oil (FO) and Light Diesel Oil (LDO). Based on above, the power station wise Weighted Average Landed Price/Rate of Secondary Fuel Oil purchased has been worked out.
164. It was observed that the petitioner has filed the rate of secondary fuel oil for the three months including Feb' 20 and March' 20. Vide Commission's letter dated 9<sup>th</sup> October' 2020, the petitioner was asked to file the weighted average rate of secondary fuel oil for the preceding three months i.e. January, February and March' 2019. The petitioner was also asked to explain the reasons for higher wt. average rate of secondary fuel oil in ATPS. Supporting documents like Bills/invoices in respect of secondary fuel oil purchased was asked to file.

165. By affidavit dated 30<sup>th</sup> December' 2020, the petitioner submitted the actual weighted average cost of secondary fuel in the three preceding months and in the absence of landed costs for the three preceding months, latest procurement price of secondary fuel for the generating station, before the start of the tariff period for existing stations is considered as given below:

**Table 42: Secondary fuel oil details for ATPS, Chachai**

ATPS PH-3	FO			LDO			Sec. Oil		
Month	Qty. in KL	Rate in Rs/KL	Cost in Rs. Lakhs	Qty. in KL	Rate in Rs.KL	Cost in Rs. Lakhs	Qty. in KL	Rate in Rs./KL	Cost in Rs. Lakhs
ATPS PH-3	2173.12	53080	1153.49	447.80	55952	250.55	2620.92	<b>53571</b>	1404.04
STPS PH-2&3	5692.46	44033	2506.54	862.53	53068	457.72	6554.99	<b>45221</b>	2964.26
STPS PH-4	5692.46	44033	2506.54	862.53	53068	457.72	6554.99	<b>45221</b>	2964.26
SGTPS 1&2	3345.04	44400	1485.21	2336.59	53992	1261.57	5681.63	<b>48345</b>	2746.78
SGTPS PH-3	3345.04	44400	1485.21	2336.59	53992	1261.57	5681.63	<b>48345</b>	2746.78
SSTPP PH-1	2112.30	43804	925.27	1216.56	53562	651.62	3328.86	<b>47370</b>	1576.88
SSTPP PH-2	6334.36	39286	2488.51	2275.21	46992	1069.16	8609.57	<b>41322</b>	3557.67

166. By affidavit dated 30<sup>th</sup> December' 2020, the petitioner also 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

*MPPGCL wish to submit that the prices of Furnace Oil / High Speed Diesel / Light Diesel Oil are decided by Ministry of Petroleum, GoI as such MPPGCL has no control over it. The Furnace Oil at ATPS was last procured way back in the month of Jun'14 in FY 2014-15 based on its requirement. As Oil companies do not supply part racks, the requirement was earlier worked out on consolidated basis for ATPS PH-2 and ATPS PH-3. Further, as PH-2 (2x120MW) has been decommissioned in FY-15 i.e. 13.01.2015 and 01.05.2014 respectively, therefore no further procurement of Furnace oil has been made at ATPS, Chachai.*

*The Furnace oil so purchased in Jun'14 is being in use till date. MPPGCL is pleased to inform that the specific Sec Oil consumption of ATPS PH-3 (210MW) is well within norms set by Commission. The detail of last*



*purchases (Furnace Oil) is annexed as Annexure-9A for reference please.*

*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 40 of subject petition. The supporting documents Invoices/Bill for the Secondary Fuel Oil (FO + LDO) as detailed in petition at page 40 to 42 are annexed as Annexure-9B for reference please.*

167. In view of the above, the rate of secondary fuel as filed by the petitioner is considered in this order.

168. Accordingly, the power station-wise energy charges for the control period FY 2019-20 to FY 2023-24 are worked out as given below :

**Table 43: Computation of Energy charges**

Sr. No.	Particular	Unit	ATPS PH-3	STPS PH-2&3	STPS PH-4	SGTPS PH-1&2	SGTPS PH-3	SSTPP PH-1	SSTPS PH-2
1	Installed Capacity	MW	210	830	500	840	500	1200	1320
2	Gross Station Heat Rate	Kcal/kWh	2450	2850	2400	2700	2390	2384	2175
3	Sp. Fuel Oil consumption	ml/kWh	0.50	1.75	0.50	1.15	0.50	0.50	0.50
4	Auxiliary Energy Consumption	%	9.00	10.00	8.50	10.00	5.75	5.75	5.75
5	GCV of Oil	Kcal/Ltr	10,000	10,000	10,000	10,000	10,000	10,000	10,000
6	GCV of Coal	Kcal/kg	4347	3697	3737	3729	3776	3707	3499
7	Wt. Average price of Oil	Rs./Ltr.	53571	45221	45221	48345	48345	47370	41322
8	Wt. Average price of Coal	Rs./kg	2239	3401	3291	2628	2729	4240	4211
9	Heat contributed from Oil	Kcal/kWh	5.00	17.50	5.00	11.50	5.00	5.00	5.00
10	Heat contributed from Coal	Kcal/kWh	2445	2833	2395	2689	2385	2379	2170
11	Sp. Coal consumption	Kg/kWh	0.5625	0.7662	0.6409	0.7210	0.6316	0.6418	0.6203
12	Rate of energy charge from Oil	Rs./unit	0.027	0.079	0.023	0.056	0.024	0.024	0.021
13	Rate of energy charge from Coal	Rs./unit	1.259	2.606	2.109	1.895	1.724	2.721	2.612
14	Total energy charge rate	Rs./unit	1.286	2.685	2.132	1.950	1.748	2.745	2.633
15	<b>Rate of energy ex-bus</b>	<b>Rs./unit</b>	<b>1.413</b>	<b>2.983</b>	<b>2.330</b>	<b>2.167</b>	<b>1.854</b>	<b>2.912</b>	<b>2.793</b>

169. The aforesaid energy charges have been worked out for working capital purpose. The base rate of the energy charges shall, however, be subject to month-to-month adjustment based on actual fuel price and actual GCV of coal on received basis. The recovery of energy charges shall be made in accordance with Regulations 43 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020.

### **Other Charges:**

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

170. The petitioner has claimed the MPERC Fee, water charges and cost of chemicals & consumables under the head of other charges in the petition.
171. The petitioner has also filed the Fees payable to the Commission in accordance with the MPERC Fees, Fines & Charges (Revision-I) Regulation 2010 {RG-21(I) of 2010} read with First Amendment to Regulations, 2010 {ARG-21(I)(i) of 2016} for the control period FY 2019-20 to FY 2023-24. The Water Charges payable to GoMP has been worked out by the petitioner on the rates specified by WRD for Thermal and Hydro Power stations. The details of the power station wise MPERC fee, Water Charges and cost of chemicals & consumables for FY 2019-20 to FY 2023-24 are detailed in para 14.2, 14.3 & 14.4 of the petition.
172. The petitioner has submitted that the expenses towards the Rate, Rent & Taxes, duties, levies payable to the Government, EL encashment, any Arrears paid to employees, Publication expenses, Other Statutory Charges etc. shall be claimed separately. MPPGCL shall claim these expenses on actuals at the time of True-up of respective years.

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

173. Regarding the other charges, Regulation 40.1 and 41.1 of Tariff Regulations, 2020 provides the following:

*40.1 The Operation and Maintenance expenses admissible to the thermal power stations declared under commercial operation prior to 01.04.2012 comprise*

*of employee cost, Repair & Maintenance (R&M) cost and Administrative and General (A&G) cost. These norms for O&M exclude Pension and Terminal Benefits, EL encashment, and 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 actual. If the O&M expenses as per norms provided in these Regulations are more than the actual total O&M expenses including arrears if any, as per audited accounts of generating company, the O&M expenses to the extent of normative O&M expenses shall be allowed. The claim of pension and Terminal Benefits shall be dealt as per Regulation 39.4 of these Regulations.*

*41.1 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 for O&M exclude Pension and Terminal Benefits, EL encashment, and 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 actual. If the O&M expenses as per norms provided in these Regulations are more than the actual total O&M expenses including arrears if any, as per audited accounts of generating company, the O&M expenses to the extent of normative O&M expenses shall be allowed. The claim of pension and Terminal Benefits shall be dealt as per Regulation 39.4 of these Regulations.*

174. In view of the above, the Commission observed that the O&M norms for MPPGCL's thermal and hydel power stations are excluding cost of chemicals and consumables therefore, the petitioner is allowed to recover cost of chemicals and consumables in thermal and hydro power stations in accordance to Regulation 40.1 and 41.1 respectively.

175. Regarding the Application fee, publication expenses and other statutory charges,

Regulation 65 of MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2020, provides as under:

*“The following fees, charges and expenses shall be reimbursed directly by the beneficiary in the manner specified herein:*

- (i) The application filing fee and the expenses incurred on publication of notices in the application for approval of tariff, may in the discretion of the Commission, be allowed to be recovered by the generating company directly from the beneficiaries.*
- (ii) The Commission may, for the reasons to be recorded in writing and after hearing the affected parties, allow reimbursement of any fee or expenses, as may be considered necessary.*
- (iii) SLDC Charges and Transmission Charges as determined by the Commission shall be considered as expenses, if payable by the generating stations.*
- (iv) RLDC/NLDC charges as determined by the Central Commission shall also be considered as expenses, if payable by the generating station:*

176. In view of the above, the petitioner is allowed to recover the fee paid to MPERC and publication expenses as per Regulation 65.1 (i) of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 on submission of documentary evidence.

177. Regarding water charges, Regulation 65.2 of MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020, provides as under:

*“65.2 Electricity duty, cess and water charges if payable by the Generating Company for generation of electricity from the power stations to the State Government, shall be considered and allowed by the Commission separately by considering normative parameters specified in these Regulations and shall be trued-up on actuals:*

*Provided that in case of the Electricity duty is applied in the auxiliary consumption, such amount of electricity duty shall apply on normative auxiliary consumption of the generating station (excluding colony consumption) and apportioned to the each beneficiaries in proportion to their schedule dispatch during the month.*

178. In view of the above, the petitioner is also allowed to recover the water charges paid to Water Resources Department, Government of MP as per Regulation 65.2 of MPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 on submission of documentary evidence.
179. Based on the above, the summary of Annual Capacity (fixed) Charges and Energy (variable) Charges approved by the Commission for the control period FY 2019-20 to FY 2023-24 are as given below:

**Table 44: Head Wise Annual Capacity Charges Allowed**

S. No.	Particulars	AFC Allowed (Rs in Cr.)				
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	Return on Equity	816.42	816.42	816.42	816.42	816.42
2	Interest on Loan	1260.30	1145.72	1035.86	931.39	828.23
3	Depreciation	1131.48	1122.81	1064.75	1040.98	1024.78
4	O&M Expenses	1424.75	1474.72	1526.62	1580.28	1635.70
5	Special Allowance	78.85	78.85	78.85	78.85	78.85
6	Interest on Working Capital	441.63	412.66	412.68	413.35	414.03
<b>Total Capacity (fixed) Charges</b>		<b>5153.43</b>	<b>5051.17</b>	<b>4935.18</b>	<b>4861.27</b>	<b>4798.01</b>

**Table 45: Power Station Wise Capacity Charges Allowed (Rs in Crore)**

Sr no	Power Stations	AFC Allowed				
		FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	ATPS, Chachai PH-3	198.06	193.75	190.32	164.21	163.59
2	STPS PH-2&3	402.00	406.54	415.49	424.78	434.32
3	STPS, Sarni PH-4	653.75	638.85	626.97	615.41	603.99
4	SGTPS, PH-1&2	440.15	445.35	454.41	463.81	457.03
5	SGTPS, Birsing'pur PH-3	391.03	378.33	313.15	311.19	309.32
6	SSTPS PH-1	1377.48	1338.60	1307.74	1277.13	1246.84
7	SSTPS PH-2	1426.77	1392.04	1365.78	1339.80	1314.19
	<b>Thermal</b>	<b>4889.24</b>	<b>4793.46</b>	<b>4673.86</b>	<b>4596.34</b>	<b>4529.29</b>
8	Gandhi Sagar	14.28	14.71	15.21	15.71	16.23
9	Pench	25.75	26.36	27.06	27.76	28.49

10	Rajghat	14.52	14.69	14.88	15.08	15.29
11	Bargi	16.87	17.21	17.60	17.99	18.40
12	Bansagar (1,2&3)	148.65	150.11	151.88	153.65	155.50
13	Bansagar-4, Jhinna	9.35	9.37	9.46	9.54	9.63
14	Birsinghpur	5.90	5.97	6.06	6.15	6.24
15	Madhikheda	28.87	19.29	19.17	19.05	18.94
	<b>Hydel</b>	<b>264.19</b>	<b>257.71</b>	<b>261.32</b>	<b>264.93</b>	<b>268.72</b>
<b>Total</b>		<b>5153.43</b>	<b>5051.17</b>	<b>4935.18</b>	<b>4861.27</b>	<b>4798.01</b>

**Table 46: Energy (Variable) Charges determined (Rs /Unit)**

S. No	Power Station	Energy Charges at ex-bus for FY 2019-20 to FY 2023-24
1	ATPS PH-3	1.413
2	STPS PH-2&3	2.983
3	STPS PH-4	2.330
4	SGTPS PH-1&2	2.167
5	SGTPS PH-3	1.854
6	SSTPS PH-1	2.912
7	SSSTPP PH-2	2.793

**Implementation of the Order**

180. The generation tariff under the Multi-Year Tariff framework for the control period from FY 2019-20 to FY 2023-24 is determined under MPERC (Terms and Conditions for Determination of Generation Tariff) Regulation' 2020. The petitioner is directed to file true-up petition for FY 2019-20 based on the Annual Audited Accounts within 60 days from the date of issue of this order.
181. The Commission directs that the generation tariff determined in this order shall be applicable from 1<sup>st</sup> April' 2019 and will continue to be operative till 31<sup>st</sup> March' 2024, under Multi Year Tariff Principles. The difference between the billing done in accordance with Regulation 7.11 of the Tariff Regulations, 2020 for the period starting from 01.04.2019 and the tariff determined in this order shall be done in accordance to second proviso of the Regulation 7.11 of the Regulations, 2020 in six equal monthly installments.

182. 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.

183. With the above directions, this Petition No. 53 of 2020 is disposed of

**(Shashi Bhushan Pathak)**  
**Member**

**(Mukul Dhariwal)**  
**Member**

**(S.P.S Parihar)**  
**Chairman**

**Date: 19<sup>th</sup> May' 2021**

**Place: Bhopal**



**Annexure-I**

**Petitioner's Response on the comments offered by the Stakeholder along with the observations:**

**Stakeholder Comment:**

There has been a delay in filing the instant MYT Petition. Petitioner be directed to provide the audited accounts of the financial year 2019-20 based on actual income and expenditure, consequent to which the tariff of financial year of 2019-2020 be considered as final order.

The Tariff period for referenced petition tariff period is for control period 2019-20 to 2023-24 –It is humbly requested that tariff for FY 2019-20 to be the final tariff order as fixed in order passed for 2016-17 to 2018-19.

**Petitioner's Reply:**

*The MYT Regulation, 2020 was notified by the Commission on 28.02.2020. Accordingly, MPPGCL has initiated the work of framing of Petition. However, due to outbreak of COVID19 pandemic, MPPGCL could file the MYT petition for the control period FY 2019-20 to FY 2023-24 before Hon'ble Commission on 07.08.2020 based on Figure of Gross Block, Normative Loan And Equip, as on 31.03.2019, as submitted by MPPGCL in the True up petition for FY 2018-19 and Final Tariff Petition of SSTPP Stage —II, Khandwa.*

*The True up petition for FY 2018-19 and Final Tariff Petition of SSTPP Stage II, Khandwa has been prepared and submitted before Hon'ble Commission on the basis of Audited Books of Accounts of MPPGCL for FY 2018-19. These petitions are under process before the Commission for issue of orders. The approach adopted by MPPGCL is firmly in line with MPERC Regulations 2020 as reproduced hereunder:-*

*“21.1 The Capital cost of the generating station as determined by the Commission after prudence check in accordance with these Regulations shall form the basis of determination of tariff for existing and new projects”.*

*“33.3. In case of the generating station declared under commercial operation prior to 1.4.2019, debt- equity ratio allowed by the Commission for*

*determination of tariff for the period ending 31. 3.2019 shall be considered.”*

*“36.2 the normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31. 3.2019 from the gross normative loan.”*

*It is to mention that MPPGCL has already submitted the Audited Financial Statements for FY 2018-19 before the Commission in the matter of True for FY 2018-19.*

*The stake holder is unnecessarily trying to link the Financial Accounts for FY 2019-20 with the instant petition which is contrary to the provisions of MPERC Regulations 2020.*

*It is to mention that the audited Accounts for FY 2019-20 shall be submitted before the Hon'ble Commission while submission of True up petition for FY 2019-20, however, filing of petition can be done only after determination of Multi Year Tariff for the Control period FY 2019-20 to FY 2023-24.*

*MPPGCL humbly request the Commission that the comment of Shri Rajendra Agrawal is completely irrelevant & baseless and has no merits, therefore may please be quashed.*

**Observation:**

In terms of Regulation 6.2 of the Tariff Regulations, 2020, a Generating Company has to make an application for determination of multiyear Tariff within 60 days from the date of the notification of the Regulations. But, considering the difficulties faced by the generating companies in filing their MYT Petitions on account of the lockdown imposed across the country due to COVID-19 pandemic, the Commission vide its Order dated 06.05.2020, extended the timeline for filing the MYT Petition to 30.06.2020.

The petitioner filed the subject MYT petition on 13<sup>th</sup> August' 2020 along with an Interlocutory Application for condonation of delay in filing the subject petition. The Interlocutory Application in the subject petition was heard on 01<sup>st</sup> September' 2020, wherein the applicant explained the reasons for delay in filing the subject MYT petition. Having heard the petitioner, the Commission

observed that the applicant has made out sufficient cause in its explanation hence, delay in filing the subject petition was condoned.

Regulation 9.8 of the Regulations, 2020 provides that the generating company shall submit for the purpose of trueing up, details of actual capital expenditure and additional capital expenditure incurred for the period from 1.4.2019 to 31.3.2024, duly audited and certified by the auditor on year to year basis. Therefore, the trueing up exercise shall be carried out on year-to-year basis based on the Annual Audited Accounts for the respective year.

### **Stakeholder Comment**

Since the petitioner has not given any responses on the issues we have communicated to them in the petitions MPPGCL True up FY 2018-19 and SSTPP PHASE-II Final tariff Determinations, hence it is requested from the Commission to direct the petitioner on the same issue so that it can be in public interest and that the capital cost as on 01<sup>st</sup> April' 2018 should only considered.

### **Petitioner's Reply**

*In regard to observation, it is to submit that MPPGCL has already submitted its reply/ stand point before Hon'ble Commission separately on the suggestion submitted by Shri R K Agrawal, in the matter of True up for FY 2018-19 vide letter No.07-12/CS-MPPGCL/MPERC/TU-FY19/ Pt. 02 of 2020/899 dated 03.12.2020 and Final Tariff Petition for SSTPP Stage-II Khandwa vide letter No.07-12/CS-MPPGCL/MPERC/SSTPP Stage-2/Pt. 25 of 2020/91 dated 25.01.2021 respectively.*

*MPPGCL humbly request Hon'ble Commission that the comment of Shri Rajendra Agrawal is repetitive & baseless and has no merits, therefore may please be quashed.*

### **Observation:**

The comment is not pertaining to the subject petition. However, the petitioner has submitted that it had already replied the stakeholder comments under the aforementioned petitions.

### **Stakeholder Comment:**

The Petitioner has not submitted the power station wise and item wise elaborated details of projected additional capitalization in the instant MYT Petition before the Commission and are not in accordance with the provisions mentioned in the Regulations.

### **Petitioner's Reply**

*MPPGCL vide letter No. 980 dated 30.12.2020 has submitted the Power Station wise & Item wise elaborated details of Projected additional Capitalization claimed in the instant NYT petition before the Hon'ble Commission. In the aforesaid reply, MPPGCL has clearly mentioned the provisions under which such Projected additional capitalization is claimed by petitioner.*

*The bifurcation of Essential and Statutory works made in the petition, is for ease for understanding the modularity of capital works, to be undertaken at various thermal and Hydro power stations. In this regard the relevant proviso of MPERC Regulations, 2020 are reproduced hereunder:*

*"27. Additional capitalization is under the original scope and after the cut-off Date. -----*

*It is to mention that MPPGCL has thoroughly read the provisions of MPERC Regulations as against the comments made by the stake holder. The projected additional capitalization claimed at SGTPS PH-1&2 Birsinghpur are in accordance with the aforesaid proviso of MPERC Regulations, 2020. MPPGCL has also intimated the provisions under which such Projected additional capitalization is being claimed.*

*The proviso 27 & 28 of Regulations, 2020 stated above clearly provides to allow the projected additional capitalization beyond the cutoff date under the counts mentioned in the said proviso. It appears that while submitting the suggestion, the said provisions of Regulations has not been studied properly by the stake holder and submission on baseless doubts without understanding the relevant provisions of Regulations have been made.*

*MPPGCL vide letter No. 980 dated 30.12.2020 has submitted the details of Projected additional Capitalization at SSTPP Stage-II claimed in the instant NIYT petition before the Hon'ble Commission. In the aforesaid*

*reply, MPPGCL has clearly mentioned the provisions under which such Projected additional capitalization is being claimed by the petitioner.*

*In the instant petition, MPPGCL has requested the Hon'ble Commission for allowance of projected additional capitalization for Gandhi Sagar HEP, based on proviso of additional capitalization stipulated in the NIPERC Regulations, 2020. The suggestion made on applicability of Proviso for Comprehensive R&M Expenditure is not relevant on proposed additional capitalization because the works proposed are not related to R&M but are towards replacement due to obsolescence of technology.*

*The suggestion submitted by stake holder is irrelevant, baseless, as no facts have been provided nor any documentation in support thereof, it is therefore humbly requested to quash the point.*

**Observation:**

The petitioner has submitted all the required details regarding proposed power station-wise additional capitalization in the subject petition as well as in its additional submission dated 30<sup>th</sup> December' 2020.

**Stakeholder Comment:**

The tariff for STPS Sarni PH-2&3 should only be restricted till its commissioning is projected as it is on the line towards decommissioning Hence it is requested from the Commission that the tariff till FY 2023-24 for this power station need not be determined.

**Petitioner's Reply**

*In regard to observation it is to submit that directives from Hon'ble Energy Deptt., GoMP, towards de-commissioning of STPS PH-2&3 Sarni are still awaited. Further, MPPGCL wishes to submit that the Unit No. 6 & 7 are still running for providing grid stability on 220KV Network by injecting power and meeting the demand of the state. MPPGCL has therefore considered these units in the instant petition. MPPGCL humbly requests Hon'ble Commission to kindly determine the tariff of STPS PH-2&3 till these units are decommissioned.*

*The suggestion submitted by stake holder appears to be ambiguous, irrelevant and not in line with Regulatory provisions and therefore may please be quashed.*

### **Observation**

The petitioner has confirmed that the directives from Energy Department are still awaited for its decommissioning. As long as Unit No 6 & 7 are running, the tariff needs to be determined for this power station. However, the recovery of Annual Capacity Charges shall be based on actual Plant Availability Factor with respect to NAPAF of the power station in accordance to the Regulations, 2020. Similarly, the recovery of energy charges shall be based on the scheduled energy.

### **Stakeholder Comment**

MPERC (Terms Conditions for determination of Generation Tariff, 2020) was notified by Hon'ble Commission on 20.02.2020 before the outbreak of novel Coronavirus ("Covid-19") and the same may be amended by exercising its inherent powers under Regulation 68.2 of the Tariff Regulations, 2020.

### **Petitioner's Reply**

*MPPGCL has submitted the instant petition strictly in line with provisions Notified in MPERC Regulations, 2020, therefore the same may kindly be permitted.*

*In view of the directives issued by GoMP vide letter No. F-3/22/2013/13 dated 04.04.2020, Hon'ble Commission has already taken action taking into cognizance the outbreak of Covid19 Pandemic in the State and provided relief to the consumers and utilities by relaxing the norms of late payment surcharge vide order dated 05.04.2020 posted on website. It appears that the stake holder has not made any efforts to get himself updated on the issue before raising such ambiguous request.*

*It is further to mention that MPPGCL has already written-off its receivable i.e. dues of MPPGCL amounting to Rs. 250 Crores in addition to Late payment surcharge amounting to Rs. 371.98 Crores on the directions received from*

*Energy Deptt., GoMP vide letter No. F-3/21/2018/13 dated 24.12.2020 extending relief to Discoms and end consumers.*

*Moreover, it is also to inform that MPPGCL has already extended relief to the tune of Rs. 96.42 Crores to the beneficiary by relaxing the Fixed Charges Bills by 20% for the period March' 2020 to May' 2020 (lockdown period).*

*The suggestion submitted by stake holder has no merits and therefore may please be quashed*

### **Observation**

The Comment offered by the stakeholder is not pertaining to the subject petition.

### **Stakeholder Comment**

The maximum limit of Return on Equity ("RoE") in the present Petition be set on 10%.

### **Petitioner's Reply**

*MPPGCL has claimed the RoE as per proviso 33 & 34 of MPERC Regulations, 2020, the same may kindly be permitted. The Central Govt. packages referred by the stake holder are related to Central Sector distribution & Transmission units and are not in purview of the State and not relevant to instant petition filed by MPPGCL before Commission.*

*However, it is further to inform that MPPGCL has already extended relief to the tune of Rs. 96.42 Crores to the beneficiary by relaxing the Fixed Charges Bills by 200/o for the period March'2020 to May'2020 (lockdown period).*

*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised*

### **Observation:**

Base Rate of Return on Equity is considered in accordance with the Regulations, 2020.

### **Stakeholder Comment**



The petitioner's request for additional equity of 0.5% in SSTPP PH-2 need not be permitted as there is no provision in the Regulations regarding that.

### **Petitioner's Reply**

*It is to mention that the units of SSTPP Stage-II has achieved CoD on dated 18.11.2018 & 27.03.2019 respectively and thus governed under MPERC Regulations, 2015 for the control period 2016-17 to FY 2018-19. As per provision 30 of MPERC Regulations 2015 :-*

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

*As per the Appendix-I "Time line for completion of Project" of Regulation, 2015, the completion time schedule shall be reckoned from the date of investment approval by the Board (of the Generating Company), up to the Date of Commercial Operation of the Units or Block of Unit size 660/800 MW is 50 months for Extension Projects and Subsequent Units at an interval of 6 months each.*

*Unit No. 3 of SSTPP Stage —II has started Commercial operation in 47 months (as against 50 months permitted in Regulations, 2015) and Unit No. 4 of SSTPP stage-II has started Commercial operation in 51 months (as against 56 months permitted in Regulations, 2015) from Zero Date. Accordingly, MPPGCL is entitled to avail the additional Return in Equity of 0.5% as per proviso 30 read with Appendix-I of the Regulations, 2015.*

*The statements submitted by the stake holder towards the timely completion of SSTPP Stage-II project are baseless and is not related to the instant MYT petition filed by MPPGCL. On this issue, MPPGCL has already submitted its comprehensive reply before Hon'ble Commission against the petition for determination of Final Generation Tariff of Units of SSTPP Stage-2, Khandwa. Similar, reply has also been submitted vide letter No. 980 dated 30.12.2020 as additional information as desired by Hon'ble Commission.*

*In view of the above MPPGCL humbly request Commission to kindly quash the observation raised under.*



### **Observation**

This issue has been dealt by the Commission in the final tariff order issued in petition No. 25 of 2020 for SSTPP PH-II, in accordance with the provisions under Regulations, 2015.

### **Stakeholder Comment**

The petitioner is not able to inform about the provision of achieving the commissioning of the RGMO/FGMO mode.

### **Petitioner's Reply**

*The Tariff of Power Stations of MPPGCL is determined by the Hon'ble Commission based on prevailing MPERC Regulations. Reference of CERC Regulations given by the stake holder is thus not relevant. However, here it is to mention that MPPGCL vide Letter No. 980 dated 30.12.2020 has already informed the Hon'ble Commission regarding the status of commissioning of the Restricted Governor Code Operation (RGMO)/ Free Governor Code Operation (FGMO) at its Power stations in accordance with proviso 34.2 of NIPERC Regulations 2020. The certificate issued in this regard by IP SLDC vide No. 07-05/RPC-35/1895 dated 26.11.2020 has also been submitted before Hon'ble Commission.*

*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised.*

### **Observation:**

The petitioner vide letter dated 30<sup>th</sup> December' 2020 has informed regarding the status of commissioning of the RGMO/FGMO at its power station in accordance with the Regulations, 2020.

### **Stakeholder Comment**

In respect to the increment of Operation and Maintenance expenses, the said expenses be considered similar to the State of Chhattisgarh and the Operation and Maintenance expenses be kept at the same level of 2018-2019. The actual expenses for Operation and Maintenance as incurred by the Petitioner in the previous year be approved for the Petitioner

### **Petitioner's Reply**

*MPPGCL has considered the O&M norms as specified in the Notified MPERC Regulations, 2020 and accordingly has submitted the Normative O&M expenses for its Thermal and Hydro Power units in the instant petition. The stake holder has challenged the Methodology and Norms notified by the Hon'ble Commission in its NIYT Regulations, 2020.*

*MPPGCL wishes to submit that due to outbreak of COVID19 Pandemic in State, additional expenditure over and above normal expenditure has been incurred by MPPGCL at its Power Stations for complying to the directives issued by GoI/GoMP. The maintenance contracts were delayed/ extended due to Lockdown, binding of quarantine rule burdened MPPGCL with additional Labour Charges (contracted). MPPGCL has also incurred expenses on account of Face Masks, Hand Sanitizers, Gloves & Caps, Kadha, additional medical expenses etc. to save guard its manpower from ill effect of COVID19 as per the guidelines. It may be appreciated that round the clock Electricity generation was ensured under such severe circumstances.*

*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised under.*

### **Observation:**

O&M Expenses are considered as per the norms provided in the MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2020.

### **Stakeholder Comment:**

Working capital Regulation covers Cost of coal towards stock, if applicable, for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations in MPERC Tariff Regulations, 2015 whereas in CERC, 2019 Regulation, it covers Cost of coal towards stock, if applicable, for 10 days for pit-head generating stations and 20 days for non-pit-head generating stations. The Commission can amend this working capital Regulation as per CERC so that it doesn't burden the consumers of the State.

### **Petitioner's Reply**

*MPPGCL has considered the working capital norms as prescribed in the Notified MPERC Regulations 2020 and submitted the Normative Interest on working capital for its Thermal and Hydro Power Plants. The stake holder has challenged the methodology of Norms prescribed by the Hon'ble Commission by irrationally relating the same with CERC regulations & electricity act. It is further to submit that Hon'ble Commission in the process of finalization of NYT Regulations had obtained the comments/suggestions/observations from Power Utilities / stake holders. After due deliberation in the matter considering the various arguments, Hon'ble Commission has judiciously decided the norms of Working Capital in the MYT Regulations, 2020.*

*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised and permit the Working Capital and Interest thereon, as per the prevailing MYT Regulations, 2020.*

### **Observation:**

The Commission has considered the cost of coal for working capital in accordance to MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2020.

### **Stakeholder Comment:**

The rate of interest on working capital seems to be wrong computed by the petitioner.

### **Petitioner's Response:**

*As per proviso 38.3 of MPERC regulations 2020: "38.3 Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-20 of 2023-24 in which the generating station or a unit thereof, is declared under commercial operation, whichever is later."*

*Based on above proviso, MPPGCL has worked out the Interest Rate for Working Capital and claimed interest on working Capital.*

*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised.*

**Observation:**

In accordance with Regulation 38.3 of the Tariff Regulations, the rate of interest on working capital shall be considered the bank rate as on 01.04.2019 or as on 1st April of the year during the tariff period 2019-20 to 2023-24. Further, the Bank Rate' means the one-year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points.

In view of the above, the rate of interest on working capital has been considered in accordance to the Regulations, 2020.

**Stakeholder Comment:**

The Petitioner has not informed any details about weighted average landed cost of fuel for Jan' 19, Feb' 19 and March' 19 according to the provisions under Regulations, 2020. Asset additions towards R&R transportation system may not be permitted.

**Petitioner's Reply**

*As desired by the Commission, MPPGCL has already submitted the details of weighted Average Landed cost of Fuel for Jan.'20, Feb.20 & Mar,'20 as well as for Jan.'19, Feb.'19 & Mar.'19 vide letter No. 980 dated 30.12.2020. It is requested to kindly consider the same.*

*The stake holder has absurdly tried to mix up and impose the suggestions submitted against True Up petition for FY 2018-19 with this NYT petition with respect to Asset additions towards R&R transportation system.*

*The reply as earlier submitted before the Commission by MPPGCL, vide letter No. 899 dated 03.12.2020, is reproduced for kind perusal of Hon'ble Commission:-*

*The Coal to the Thermal Power Stations of MPPGCL are supplied through subsidiary companies of Coal India Limited (CIL) namely South Eastern Coal Fields Limited (SECL), Western Coal Fields Limited (WCL) and Northern Coal*

fields Limited (NCL). The supply of Coal is governed by Fuel Supply Agreements signed between these companies and MPPGCL. The copies of such Fuel Supply Agreements are being submitted before the Commission from time to time.

MPPGCL wish to clear that the mode of transportation of coal i.e. Road-Rail is being carried out for the coal supplied by NCL. The Fuel Supply Agreement (FSA) signed between NCL & MPPGCL has inbuilt clause for mode of transportation as Rail/Road/ Road-cum-Rail (OCR) and specified in Schedule-1 of FSA signed on 20.06.2018. It is further to mention that the format of FSA is framed by CCL and abides to all Coal companies and Power Generating companies.

The Central sector companies namely NTPC and other IPPs have also adopted the mode of transportation by RCR.

It is to submit that the Coal companies transport the coal from Coal mines upto Railway siding by road for which Transportation Charges are levied in Coal invoice/Bill and payable by MPPGCL. When the coal companies are unable to transport coal through road upto railway siding, or due to lapse of coal transportation contract at Coal Company's end or due to inability of Railway siding to handle large volume of coal, the shortage of coal results. In such situation coal companies request the power generating companies to transport coal through Road-Cum-Rail mode to fulfill their demands/requirements. Under such circumstances/compulsion, MPPGCL has awarded contracts as per the procedure through open tender, for coal transportation through Road-Cum-Rail mode. In such cases, the Coal companies in transparent manner do not levy Road Transportation Charges in Coal invoice/Bill payable by MPPGCL, thus no additional burden is imposed on the consumers.

It is to further submit that on need based requirement, such Mode of transportation i.e. RCR has been availed by MPPGCL else normal supply method of coal companies prevails.

In regard to obtaining prior approval of MPPGCL towards RCR mode of coal transportation, it is to submit that MPPGCL complies with all directives

*specified in PPAs and Regulation 36.8 & 36.9, as such there is no requirement.*

*It is further to submit the cost involved in coal supplied through PCP mode when compared to Rail mode is negligible and has no noticeable impact on ECR. Hence no burden has been imposed on consumers.*

*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised.*

### **Observation**

The petitioner vide reply dated 30<sup>th</sup> December' 2020 has submitted the details regarding fuel cost for the preceding three months along with supporting documents.

### **Stakeholder Comment:**

The petitioner has not submitted the detailed regarding Actual figures of operational parameters in the petition.

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

*MPPGCL has submitted the Actual figure of operational Parameters in the Chapter -6 "Performance parameters" of the instant petition. This is in line with the approach adopted by MPPGCL in the earlier MYT / True up petitions to exhibit the actual performance of Power Stations of MPPGCL w.r.t. normative operational parameters before the Hon'ble Commission.*

*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised.*

### **Observation**

The petitioner has filed the details of operational parameters actually achieved in the subject petition.

### **Stakeholder Comment**

The petitioner has provided the historical comparison of the operational parameters for four years which is not required under the provisions under

the Regulations, 2020. It is also observed that the Energy production in MU's is also less than the design energy.

### **Petitioner's Reply**

*MPPGCL has submitted the Actual figure of operational Parameters in the Chapter -6 "Performance parameters" of the instant petition. This is in line with the approach adopted by MPPGCL in the earlier MYT / True up petitions to demonstrate the actual performance of Power Stations of MPPGCL w.r.t. Normative operational parameters before the Hon'ble Commission & the Hon'ble Consumers.*

*The Power station wise reasons for comparatively low generation as pointed by the stake holder are as under:*

#### *Pench HPS:*

*Pench HPS is Inter State Bilateral Project of the state of Madhya Pradesh and Maharashtra, where release of water from dam is controlled by Department of Soil & Water Management, Maharashtra, who regulates the water discharge. In the downstream of Pench HPS Totladoh, there is Navegaon-Kheri Reservoir from where water supply of Khapar Kheda TPS and for irrigation / drinking water of Nagpur Distt. is met. Accordingly, the release of water as such is controlled as per downstream requirement.*

*There is no control of MPPGCL on authorities of Soil & Water Management, Maharashtra, who decide releases of water from these reservoirs, resulting in under recovery of Capacity charges from Pench HPS despite availability of machines and Water for generation.*

#### *Bargi HPS:*

*Bargi HPS is a Multi Purpose Project of GoMP, in which functionality towards use of water is already defined. As such, MPPGCL has no control on the authorities of RABL Sagar LBM Dam section of WRD, Govt. of MP, who decides the water releases from this reservoir, resulting in under recovery of capacity charges from Bargi HPS despite of availability of machines and Water for generation.*



*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised.*

**Observation:**

The comment is not pertaining to the subject petition. However, the petitioner has filed the reasons for the comparatively low generation in the power stations.

**Stakeholder Comment**

The petitioner in the petition has given the actual age of power stations of MPPGCL which is irrelevant according to the provision under Regulations, 2020.

**Petitioner's Response**

*MPPGCL has submitted the Age of Power Stations in the Chapter-6 "Performance parameters" of the instant petition. This is in line with the approach adopted by MPPGCL in the earlier NYT / True up petitions to demonstrate the actual age of Power Stations of NIPPCGL before the Hon'ble Commission & the Hon'ble Consumers.*

*Here it is to mention that, proviso 37.6 of MPERC regulations 2020 provides that remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.*

*In view of the above, the Power stations wise Age detail submitted by MPPGCL becomes more relevant for working out the Depreciation. In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised .*

**Observation:**

Comment offered by the stakeholder is not pertaining to the subject petition. However, the petitioner has confirmed that it has given the age of the power station for working out the depreciation.

**Stakeholder Comment:**



Other charges demand of petitioner is in regard to Regulation 40.1 and 40.2 of the Regulations, 2020 which is subject to true up on actuals, hence, demand of other charges is irrelevant.

**Petitioner's Response:**

*As per proviso 40.2 the water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details regarding the same shall be furnished along with the petition. In compliance to aforesaid requirement of Regulation the water charges have been incorporated in the instant petition. The details/projections of the water charges have been submitted before the Hon'ble Commission vide letter No. 980 dated 30.12.2020.*

*MPPGCL further wishes to submit that the True up of the Other charges shall be claimed on actual basis by MPPGCL in the True up petitions of the respective years based on the audited Books of Accounts of respective years.*

*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised under.*

**Observation:**

The Commission has considered the other charges in accordance with the provisions under Regulations, 2020.

**Stakeholder Comment:**

The petitioner has not provided the projection regarding non tariff income.

**Petitioner's Reply:**

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

*Further, the MPERC regulations 2020 also provides for sharing of Non- Tariff income with beneficiary on 50: 50 basis. The same shall therefore be done practically only after availability of actual figures in audited books of accounts.*

*Accordingly, break up of Non-tariff income for respective years shall be submitted before Hon'ble Commission for approval in the True up petitions of respective years of the control period on actual basis.*

*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised under.*

**Observation:**

Since, the petitioner has not provided any projection, hence non-tariff income is not considered in the order and the same shall be considered in true-up exercise based on the Annual Audited Accounts for the each year. It is pertinent to mention that the projected additional capitalization is also not considered in the order and the same shall be considered on actuals at the time of true up exercise.

**Stakeholder Comment:**

The petitioner demand for additional capitalization towards R&M works in Gandhisagar HPS need not be permitted as it is against the Tariff Regulations, 2020.

**Petitioner's Response**

*MPPGCL in para 5.5.2 of Instant petition has submitted the details of ongoing works at Gandhi Sagar HPS. Further, MPPGCL vide letter No. 980 dated 30.12.2020 has submitted the details of projected capital expenditure and its additional capitalization to be undertaken at Gandhi Sagar HPs along with the supporting documents. It is humbly requested to kindly consider the same. Any further details in this regard as and when desired by the shall be submitted accordingly. Also MPPGCL is in process of preparation of petition for R&N works at Hydro Power stations of MPPGCL. The same shall be filed before the Hon'ble Commission.*

*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised.*

**Observation:**

The additional capitalization filed by the petitioner shall be scrutinized in true-up exercise based on the Annual Audited Accounts for each year respectively.

**Stakeholder Comment:**

Since SGTPS PH 1&2 are have almost completed their useful life which is 21 years and 27 years and they are planning to file petition for permitting the Capital Expenses in Tariff towards R&M works of PH-1 SGTPS Birsinghpur. The Commission should direct the petitioner to kindly taken consent from the Respondents for all the capital expenditure going to be incurred in R&M works.

**Petitioner's Reply**

*A petition was filed before Hon'ble MPERC towards R&M works of PH-1 SGTPS Birsinghpur in April 2017. The Hon'ble Commission after due deliberations did not considered the petition for approval due to high costs involved.*

*The BoD of MPPGCL has recently accorded approval for following:-*

*Invite Expression of Interest as per draft EoI document from eligible and experienced bidders of indigenous as well as foreign origin (in line with relevant GoI policies) with foolproof credentials to carry out necessary R&M work in line with new CEA guidelines for performance improvement, life extension and flexible operation of 4x210 MW units of SGTPS. Qualified PQR bidders shall be shortlisted amongst these offers.*

*Invite bids from the shortlisted/qualified bidders to submit their offer to carry out feasibility study and preparation of bid documents along with price bids for the same. The lowest qualified bidder after the above process will also make offer for comprehensive R&M of 4x210 MW units of SGTPS along with financial viability.*

*Based on feasibility report and tender documents so prepared, offers from other prospective bidders qualifying the PQR of EoI, whether they participated in EoI or not, shall be invited through Swiss Challenge mode for complete R&M of 4x210 MW units of SGTPS in comparison to the price*

*quoted by the lowest bidder from EoI, who was entrusted to carry out feasibility study and prepare the tender documents.*

*In case, some other qualified bidder quotes better offer, counter offer shall be given to the lowest bidder who made Did documents with right of refusal. If he accepts the counter offer, work shall be entrusted to him else the other bidder quoting the better offer shall be entrusted with the work.*

*On finalization of proposal for R&M, MPPGCL shall approach Hon'ble Commission through separate Petition for permitting the Capital Expenses in Tariff.*

*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised.*

**Observation:**

The Comment does not pertain to the subject MYT Petition.

**Stakeholder Comment:**

The Commission should direct the petitioner to kindly follow CEA Rules/guidelines and file the additional capital expenditure related to Emission norms in accordance with the Regulation 31 of Tariff Regulations, 2020.

**Petitioner's Response**

*MPPGCL is required to incur additional capital expenditure in the existing generating station for compliance of the MoEF&CC notified revised Emission Standards/norms and its amendments from time to time. In case utility fails to comply with the MoEF&CC revised Emission norms, it won't be allowed to run its power stations. Compliance of these norms as such is compulsory and mandatory. As per Regulations MPPGCL shall share its proposal with the beneficiaries and file a petition before Commission for undertaking such additional capitalization.*

*MPPGCL has decided to install Wet FGD system using Lime Stone for capturing Sulphur Dioxide (SO<sub>2</sub>) as per CEA studies. The tendering for installation of Wet FGD system is in process.*

*Once the proposal is finalized MPPGCL shall approach Hon'ble Commission through separate Petition for permitting the Capital Expenses in Tariff.*

*In view of the above MPPGCL humbly request Hon'ble Commission to kindly quash the observation raised.*

### **Observation**

The Commission has not considered additional capitalization in any power station and same shall be examined in true-up exercise based on the Annual Audited Accounts for the each year of the control period.

### **Stakeholder Comment:**

MPPGCL in para 17 of the petition has stated that the future capital expenditure likely to be incurred towards various ongoing new projects of MPPGCL. This part of the petition is not related to the subject MYT petition.

### **Petitioner's Response**

*MPPGCL in para -17 of instant petition has stated that the future capital expenditure likely to be incurred towards various ongoing new projects of MPPGCL as detailed in subsequent Chapters shall be submitted before Hon'ble Commission through separate petitions. The project wise details in this regard have been submitted in para-5.5 of the instant MYT petition. This is in line with the approach adopted by MPPCCL in the earlier MYT / true up petitions to demonstrate the future plans of MPPCGL before the Hon'ble Commission & the Consumers. In view of the above MPPGCL humbly request the Commission to kindly quash the observation raised.*

### **Observation:**

The comment does not hold any relevance to the subject MYT petition