

MAHARASHTRA STATE POWER GENERATION CO. LTD.

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Regulatory And Commercial Dept

Prakashgad, 3rd Floor,

Bandra (E) Mumbai 400 051

Ref No.: RCD24/75/LT01633

Date: 05.12.2024

To,

The Secretary,

Maharashtra Electricity Regulatory Commission,

13th Floor, Centre 1, World Trade Centre,

Cuffe Parade, Mumbai.

Sub: Submission of Consolidated revised MYT Tariff Petition of MSPGCL for True Up of FY 2022-23 & FY 2023-24, provisional True Up for FY 2024-25 and projected ARR & tariff for FY 2025-26 to FY2029-30 in 5th MYT Control Period, under section 61 & 62 of the Electricity Act 2003, MERC (Multi Year Tariff) Regulations, 2019 and MERC (Multi Year Tariff) Regulations, 2024. (MERC Case No. 187/MY/2024)

Ref: 1) MERC (Multi Year Tariff) Regulations, 2019.

2) MERC (Multi Year Tariff) Regulations, 2024.

3) MYT Petition filed by MSPGCL on Dtd. 30.10.2024

4) Data gaps Set-I received from MERC office on Dtd. 11.11.2024 on E-Mail.

5) Replies to Data Gaps Set-I submitted by MSPGCL during 19.11.2024 to 22.11.2024 through E-Mails.

4) Technical Validation Session held on Dtd. 28.11.2024.

5) Additional Data gaps received from MERC office on Dtd. 29.11.2024 on E-Mail.

Respected Sir,

Hon'ble Commission has published its Multi Year Tariff Regulations, 2024 on Dtd. 19.08.2024. The Clause 5.1 (a) of the MERC MYT Regulations, 2024 stipulates the submission of Multi Year Tariff petition on or before 1st November,

2024. Similarly, Clause 5.1 (C) of MERC MYT Regulation, 2019 stipulates submission of True-up Petition for FY 2022-23 & FY 2023-24 along with provisional True-up for FY 2024-25 by 1st November 2024.

Accordingly, on 30th October, 2024, MSPGCL had filed the Petition in the matter of Multi Year Tariff Petition of MSPGCL for True Up of FY 2022-23 & FY 2023-24, provisional True Up for FY 2024-25 and projected ARR & tariff for FY 2025-26 to FY 2029-30 in 5th MYT Control Period, under section 61 & 62 of the Electricity Act 2003, MERC (Multi Year Tariff) Regulations, 2019 and MERC (Multi Year Tariff) Regulations, 2024. (MERC Case No. 187/MY/2024)

Subsequently Data gaps Set-I were raised on Dtd. 11.11.2019. MSPGCL has submitted the replies to the data gaps raised by Hon'ble Commission by 22.11.2024.

Subsequently, the Technical validation Session in the matter was held on Dtd. 28.11.2024.

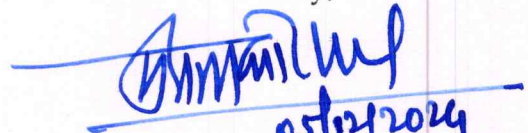
Additional Data Gaps are communicated by Hon'ble Commission vide E-Mail Dtd. 29.11.2024 and has directed to submit the revised petition on top priority.

Accordingly MSPGCL is filing herewith the consolidated revised petition in the matter of Case No. 187/MY/2024, by incorporating the submission made in the replies to the Data gaps and changes/corrections in earlier submission as per revised inputs from stations.

The necessary fee of Rs. 20, 00,000/- (Rs. Twenty Lakhs only) is remitted vide RTGS Transaction No. CNRBR52024102591660291 Dtd. 25.10.2024, through Canara Bank, Mumbai, to MERC Mumbai.

Thanking you.

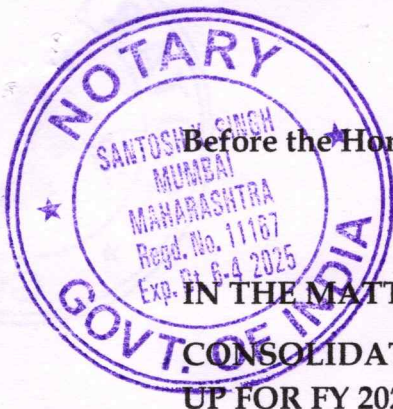
Yours faithfully,



Chief Engineer (RCD) ..

MSPGCL

Encl.: Affidavits, Consolidated Petition with Annexures



Before the Hon'ble Maharashtra Electricity Regulatory Commission, Mumbai

Filing No. _____

Case No. 187/MY/ 2024

IN THE MATTER OF

CONSOLIDATED REVISED PETITION FOR APPROVAL OF FINAL TRUE UP FOR FY 2022-23 AND FY 2023-24, PROVISIONAL TRUE UP FOR FY 2024-25 AND APPROVAL OF AGGREGATE REVENUE REQUIREMENT AND MULTI YEAR TARIFF (MYT) FOR THE CONTROL PERIOD FY 2025-26 TO FY 2029-30 OF MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED UNDER SECTION 61 & 62 OF THE ELECTRICITY ACT 2003, AND APPLICABLE MERC TARIFF REGULATIONS

AND

IN THE MATTER OF THE APPLICANT:

MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED
PRAKASHGAD, PLOT NO. G-9,
BANDRA (E), MUMBAI - 400 051

Affidavit on behalf of Maharashtra State Power Generation Company Limited

I, **Prasanna Kotecha**, son of **Kasturchandji Kotecha**, aged about 53 years, working for gain at Maharashtra State Power Generation Company Limited, Prakashgad, having address at Plot No. G-9, Bandra (East) Mumbai-400 051, do hereby solemnly affirm and sincerely state as follows:-

1. I am the Chief Engineer (Regulatory and Commercial Dept.) of the Maharashtra State Power Generation Company Limited, the petitioner in the above matter and am duly authorized by the said Petitioner to make this affidavit.
2. The statements made in the enclosed submission are based on the information from the concerned officers of the Company and I believe them to be true.
3. I say that there are following matters pending before various authorities
 - a. Appeal before Hon'ble APTEL as Appeal No. 281 of 2017 at New Delhi, against MERC order in Case No. 138 of 2016 MYT order Review petition.
 - b. Appeal before Hon'ble APTEL as Appeal No. 303 of 2018 at New Delhi, against MERC order in Case No. 151 of 2017 (MSPGCL's petition in the matter of removal of difficulties - coal shortage and its adverse impact on MSPGCL).
 - c. Appeal before Hon'ble APTEL as Appeal No. 130 of 2019 at New Delhi, against MERC order in Case No. 336 of 2018 (MSPGCL's petition for review of order in the matter of Case No. 196 of 2017).

IN THE MATTER OF

CONSOLIDATED REVISED PETITION FOR APPROVAL OF FINAL TRUE
UP FOR FY 2023-24 AND FY 2024-25, PROVISIONAL TRUE UP FOR FY 2024-25
AND APPROVAL OF AGGREGATE REVENUE REQUIREMENT AND MULTI
YEAR TARIFF (MYT) FOR THE CONTROL PERIOD FY 2025-26 TO FY 2029-30
OF MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED
UNDER SECTION 61 & 62 OF THE ELECTRICITY ACT 2003, AND
APPLICABLE MERC TARIFF REGULATIONS

AND

IN THE MATTER OF THE APPLICANT:
MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED

PRAKASHGAD, PLOT NO. G-9,
BANDRA (E), MUMBAI - 400 051

Affidavit on behalf of Maharashtra State Power Generation Company

Limited
I, _____, Director of Maharashtra State Power Generation Company Limited,
being the duly authorized officer of the said Company, do hereby state as follows:-

1. I am the Chief Executive Officer (Regulatory and Commercial Dept) of the
Maharashtra State Power Generation Company Limited, the petitioner in the
above matter and am duly authorized by the said Petitioner to make this
affidavit.

2. The statements made in the enclosed submission are based on the
information from the concerned officers of the Company and I believe them
to be true.

3. I say that there are following matters pending before various authorities
a. Appeal before Hon'ble APTEL as Appeal No. 281 of 2017 at New Delhi
against MERC order in Case No. 128 of 2016 MYT order Review petition.
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against MERC order in Case No. 151 of 2017 (MSPGC's petition in the
matter of removal of difficulties - coal shortage and its adverse impact on
MSPGC).
c. Appeal before Hon'ble APTEL as Appeal No. 130 of 2019 at New Delhi
against MERC order in Case No. 336 of 2018 (MSPGC's petition for
review of order in the matter of Case No. 196 of 2017).



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- d. Appeal before Hon'ble APTEL as Appeal DFR No. 353 of 2020 at New Delhi, against MERC order in Case No. 296 of 2019 (MSPGCL's MYT petition for the period FY 2020-21 to FY 2024-25).
- e. Appeal before Hon'ble APTEL as Appeal No. 501 of 2023 at New Delhi, against MERC order in Case No. 227 of 2022 (MSPGCL's MTR petition for the period FY 2019-20 to FY 2024-25).
- f. Civil Appeal before Hon'ble Supreme Court as Appeal No. 9408 of 2017 against the impugned Final Judgment and Order Dtd. 18.04.2017 passed by the APTEL, New Delhi in Appeal No.199 of 2015.
- g. Petition before Hon'ble MERC, MERC Case No. 236/DT/2023 Dtd. 29.12.2023 for Determination and approval of provisional tariff for Bhusawal unit 6 (1 x 660 MW) for FY 2023-24 and FY 2024-25.
- h. Petition before Hon'ble MERC, MERC Case No. 62/MP/2024 Dtd. 02.04.2024 for seeking approval of change in law claims related to coal tolling arrangements carried out under Case- IV, Phase - III.
- i. Petition before Hon'ble MERC, MERC Case No. 84/MP/2024 Dtd. 30.05.2024 for quashing/revising the Weekly VSE (Virtual State Entity) bills raised by MSLDC to Koyana HPS for reasons not attributable to Koyana HPS Operation as VSE and modifying the DSM Price vector for Regulated hydro generators operated as VSE.
- j. Petition before Hon'ble MERC, MERC Case No. 87/DT/2024 Dtd. 12.06.2024 for Determination of tariff of Solar PV Power Plant of 25 MW Sakri II established at Shivajinagar, Taluka: Sakri, Dist. - Dhule, Maharashtra, proposed for bundling of Renewable Energy power with the MSPGCL's Thermal Units.

I solemnly affirm at Mumbai on this **5th day of December, 2024** that the contents of the above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.

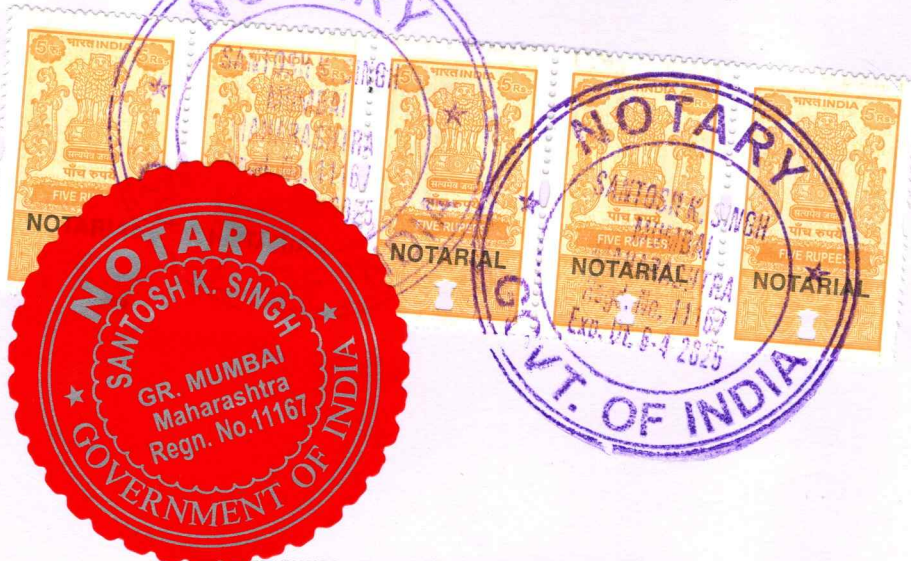

Chief Engineer, 05/12/2024
Regulatory and Commercial Dept., MSPGCL

BEFORE ME


SANTOSH K. SINGH
NOTARY
MAHARASHTRA
(Govt. of India)

Register No. 9677
Santosh K. Singh **15 DEC 2024**

15 DEC 2024

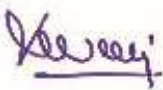


Copy of Resolution passed in the Meeting of Board of Directors held on 01.10.2024

Item no 227.7: Approval to the Rationale and projections being considered for the MYT petition of MSPGCL for Annual Revenue requirement & tariff projections for FY2025-26 to FY2029-30 in 5th MYT Control period. Also true up for FY 2022-23 and FY 2023-24 provisional true up for FY 2024-25.

Resolution no. 2024/3958: The Board considered the note submitted on the above subject and resolved as under,

1. The Board approved the rationale adopted by Regulatory and Commercial Department to arrive at various components of tariff and accords approval to the philosophy followed to frame the MYT Petition for the tariff for the 5th Control Period (FY 2025-26 to FY 2029-30) and the petition for truing-up for FY 2022-23 to FY 2024-25 as per relevant MERC Regulations.
2. The Board accorded approval for filing the MYT Petition framed on the basis of the approved rationale and assumptions as above.
3. The Board authorized CMD, MSPGCL to make & do all such acts and deeds and things necessary if any, to fulfil the requirements as per MERC Directives & regulations.
4. The Board authorized Chief Engineer (Regulatory & Commercial Department), MSPGCL to file the petition on behalf of MSPGCL; with the necessary amendments, if any.
5. The Board authorized CMD, MSPGCL in consultation with Director (Finance), Director (Operation), Director (Fuel) and Director (Project) to approve changes in the numbers, projections etc., if any, due to re-calculations or change in assumptions etc., before submission of the final consolidated MYT petition to MERC, after compliances to the data gaps raised by Hon'ble Commission.
6. The Board also directed to submit the finalized petition document to MSEB Holding Company for appraisal.



Company Secretary
MSPGCL

Petition for Approval of Final True-up
for FY 2022-23 & FY 2023-24,
Provisional True-up for FY 2024-25
and approval of Aggregate Revenue
Requirement and Multi-Year Tariff
(MYT) for the Control Period FY 2025-
26 to FY 2029-30
of
Maharashtra State Power Generation
Company Limited



Maharashtra State Power Generation
Company Limited

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List of Abbreviations

Abbreviation	Description
AFC	Annual Fixed Charges
AEC	Auxiliary Energy Consumption
APM	Administered Price
APTEL	Appellate Tribunal for Electricity
ARR	Aggregate Revenue Requirement
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CIL	Coal India Limited
COD	Commercial Operation Date
CPRI	Central Power Research Institute
DNQ	Daily Nominated Quantity
DPR	Detailed Project Report
EA, 2003	Electricity Act, 2003
ECR	Energy Charge Rate
EE R&M	Energy Efficient Renovation & Modernization
FO	Furnace Oil
FSA	Fuel Supply Agreement
FY	Financial Year
GAIL	Gas Authority of India Limited
GCV	Gross Calorific Value
GFA	Gross Fixed Assets
GoI	Government of India
GoM	Government of Maharashtra
GSHR	Gross Station Heat Rate
GTPS	Gas Thermal Power Station
IoWC	Interest on Working Capital
kCal	kilo calories
kCal/kWh	kilo calories per kilowatt hour
Kg	Kilogram

Abbreviation	Description
Kl	Kilo Litre
kW	kilo Watt
LDO	Light Diesel Oil
MCL	Mahanadi Coalfields Limited
MCR	Maximum Continuous Rating
MERC / Commission	Maharashtra Electricity Regulatory Commission
MSEDCL	Maharashtra State Electricity Distribution Limited
MSPGCL	Maharashtra State Power Generation Company
MMT	Million Metric Tonne
MMTPA	Million Metric Tonne per Annum
MoEF & CC	Ministry of Environment, Forests and Climate Change
MPCB	Maharashtra Pollution Control Board
MSEDCL	Maharashtra State Electricity Distribution Company Limited
MSLDC	Maharashtra State Load Dispatch Centre
MSPGCL	Maharashtra State Power Generation Company Limited
MTPR	Mid-Term Performance Review
MTR	Mid-Term Review
MYT	Multi Year Tariff
NPV	Net Present Value
NTI	Non-Tariff Income
OEM	Original Equipment Manufacturer
O&M	Operation & Maintenance
OGL	Open General License
PFC	Power Finance Corporation
PLF	Plant Load Factor
PPA	Power Purchase Agreement
RoE	Return on Equity
RPC	Regional Power Committee

Abbreviation	Description
RSD	Reserve Shut Down
SAS	State Advisory Committee
SBI	State Bank of India
SCCL	Singareni Collieries Company Limited
SCM	Standard Cubic Meter
SECL	South Eastern Coalfields Limited
SFOC	Secondary Fuel Oil Consumption
STPS	Super Thermal Power Station
TPS	Thermal Power Station
WCL	Western Coalfields Limited

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Before the Hon'ble Maharashtra Electricity Regulatory Commission, Mumbai

Filing No. _____

Case No.

IN THE MATTER OF:

PETITION FOR APPROVAL OF FINAL TRUE UP FOR FY 2022- 23 AND FY 2023-24, PROVISIONAL TRUE UP FOR FY 2024-25 AND APPROVAL OF AGGREGATE REVENUE REQUIREMENT AND MULTI YEAR TARIFF (MYT) FOR THE CONTROL PERIOD FY 2025-26 TO FY 2029-30 OF MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED UNDER SECTION 61 & 62 OF THE ELECTRICITY ACT 2003, AND APPLICABLE MERC TARIFF REGULATIONS

AND

IN THE MATTER OF THE APPLICANT:

**MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED
PRAKASHGAD, PLOT NO. G-9,
BANDRA (E), MUMBAI – 400 051**

The applicant, Maharashtra State Power Generation Company Limited (MSPGCL) is a Company incorporated under the provisions of the Companies Act, 1956 having its registered office at "Prakashgad", Plot No. G-9, Bandra (East), Mumbai-400051. MSPGCL is filing this Petition seeking Approval of Final True Up for FY 2022-23 and FY 2023-24, Provisional True up for FY 2024-25 and Approval of Aggregate Revenue Requirement (ARR) and Multi Year Tariff (MYT) for the control period FY 2025-26 to FY 2029-30.

1 Facts of the Case

- 1.1.1.1 MSPGCL is a Government Company within the meaning of the Companies Act, 1956. Further, it is a “Generating Company” as defined under Section 2(28) of the Electricity Act, 2003, having its registered office at “Prakashgad”, Plot No. G-9, Bandra (East), Mumbai-400051.
- 1.1.1.2 MSPGCL is operating its thermal and hydro generating stations under regulatory regime wherein the tariff of the stations is approved by the Hon’ble Maharashtra Electricity Regulatory Commission (MERC). The Hon’ble Commission has been notifying the Tariff Regulations from time to time and the same are considered for the purpose of approval of generation tariff of the stations.
- 1.1.1.3 Abiding by the provisions of Tariff Regulations 2019, MSPGCL had filed petition (Case No. 296 of 2019) for approval of tariff for the 4th control period FY 2020-21 to FY 2024-25. MSPGCL had subsequently filed the Mid-term Review Petition (Case No. 227 of 2022) for truing up of FY 2019-20, FY 2020-21, FY 2021-22, provisional true up for FY 2022-23 and approval of revised tariff for FY 2023-24 and FY 2024-25.
- 1.1.1.4 With reference to the aforesaid Petition, the Hon’ble Commission had issued Order in Case No. 227 of 2022 on 31.03.2023 (Hereinafter referred to as ‘MTR Order’) and approved the final true up of FY 2019-20, FY 2020-21, FY 2021-22, provisional true up for FY 2022-23 and revised tariff for FY 2023-24 and FY 2024-25.
- 1.1.1.5 The Petitioner had filed Petition seeking review of the MTR Order on certain issues citing some apparent errors and concerns over the principles adopted by the Hon’ble Commission. In response to this, the Hon’ble Commission has issued Order in Case No. 132 of 2023 (Hereinafter referred to as ‘Review Order’) and dealt with the issues raised in the aforementioned Review Petition.
- 1.1.1.6 The Hon’ble Commission has notified the MERC (MYT) Regulations, 2024 on 19.08.2024. As per Regulation 5.1 of the MERC (MYT) Regulations, 2024, MSPGCL has to file a Petition covering final True up for FY 2022-23, FY 2023-24, provisional Truing up for FY 2024-25 under MERC (MYT) Regulations 2019 along with projection of ARR and Tariff for 5th Control period FY 2025-26 to FY 2029-30, under MERC (MYT) Regulations, 2024.

2 Submissions

- 2.1.1.1 The present petition is filed by MSPGCL covering the following elements:
- a. True-up for FY 2022-23 and FY 2023-24 - based on audited accounts and applicable normative parameters.
 - b. Provisional True-up for FY 2024-25 based on half yearly actuals (April to September) and projections for the balance period (October to March).
 - c. Rolling Capital Investment Plan as per (Approval of Capital Investment Schemes) Regulations, 2022.
 - d. Fuel Utilisation Plan for the control period from 01.04.2025 to 31.03.2030 as per MERC (MYT) Regulations, 2024
 - e. Aggregate Revenue Requirement (ARR) and tariff for FY 2025-26 to FY 2029-30 based on principles provided in the MERC (MYT) Regulations 2024 and appropriate assumptions detailed in this petition.
 - f. Prior period expenses claimed.
- 2.1.1.2 The audited annual accounts of MSPGCL for FY 2022-23 and FY 2023-24 have been enclosed with this petition for the consideration of the Hon'ble Commission as Annexure-1. Besides the above, a reconciliation statement between annual accounts and consideration of expenses in the Petition is also enclosed along with the annual accounts. MSPGCL has also enclosed a certificate from the auditors providing the segregation of regulated and unregulated business of MSPGCL. MSPGCL submits that transactions related to Solar power plants including Kudgaon (50 MW) solar plant separately. This Petition is filed under the provisions of Section 61 and 62 of Electricity Act, 2003, MERC (MYT) Regulations, 2019 for True-up of FY 2022-23, FY 2023-24, provisional True Up of FY 2024-25. ARR and Tariff projections for FY 2025-26 to FY 2029-30 are filed as per provisions of the MERC (MYT) Regulations 2024.
- 2.1.1.3 MSPGCL has also compared the approved performance with the actual performance achieved during the years and has provided a detailed rationale for the consideration of the Hon'ble Commission.

3 Executive Summary

3.1 Background and Scope of Petition

- 3.1.1.1 Maharashtra State Power Generation Company Limited (hereinafter referred to as MSPGCL or Petitioner) is a Company formed under the Government of Maharashtra General Resolution No. ELA- 003/P.K.8588/Bhag-2/Urja-5 dated January 24, 2005 with effect from June 6, 2005. The company is operating under the provisions envisaged in the Electricity Act 2003. MSPGCL is the largest state generation company in the country with an overall operating capacity of 12791 MW as on 31st March, 2024.
- 3.1.1.2 MSPGCL by means of this present petition submitting the following for the kind consideration of the Hon'ble Commission:
 - a. True-up for FY 2022-23 and FY 2023-24 - based on audited accounts and as per MERC (MYT) Regulations 2019.
 - b. Provisional True-up for FY 2024-25 – based on half yearly actuals (April to September) and projections for the balance period (October to March) and as per MERC (MYT) Regulations 2019.
 - c. Aggregate Revenue Requirement and Multi Year Tariff (MYT) for the 5th Control period FY 2025-26 to FY 2029-30 based on principles provided in the MERC (MYT) Regulations 2024 and appropriate assumptions detailed in this petition.
 - d. Prior period expenses claimed.
 - e. Stipulated formats in Excel files are attached as Annexure – 35.

3.2 Truing up of FY 2022-23 and FY 2023-24

3.2.1 Operational Performance

- 3.2.1.1 MSPGCL has submitted the comparison of actual and normative performance parameters for individual stations. The availability and PLF of the stations have been in variance to the norms largely on account of lower coal/ gas receipts.

3.2.2 Energy Charges

- 3.2.2.1 For the purpose of truing-up of energy charges for FY 2022-23 and FY 2023-24, MSPGCL has worked out energy charges as per the MERC (MYT) Regulation 2019. The GCV of fuel is derived on normative basis considering GCV-As billed as the base. Accordingly, while showcasing the actual fuel expenses towards actual generation, the Petitioner has recomputed the energy charges that can be allowed under the normative framework. By comparing the actual fuel expenses vis-a-vis the revised normative expenses, the Petitioner has submitted its true-up claims based on sharing mechanism as per relevant MYT regulations.

3.2.3 Fixed Charge

3.2.3.1 For the purpose of fixed charges, MSPGCL has submitted the details of actual capitalization of capital expenditure in FY 2022-23 and FY 2023-24. The parameters for fixed charges have been worked out in the following manner:

- **O&M expenses** - Comparison of normative expenses based on revision of escalation factor (applied on base expenses) and expenses as per audited accounts; Water charges have been considered in addition to the O&M expenses, Impact of pay revision has also been considered separately over and above normative O&M expenses. O&M expenses for Koradi Unit 8-10 has been considered as per the suggestions provided in CEA report.
- **Depreciation** - Based on actual capitalization achieved during the years. Depreciation has been calculated on normative basis.
- **Interest on loan** - Weighted average rate of interest computed on the basis of the actual long term loan portfolio during the concerned year has been considered and the same have been applied on normative loan balances to arrive at the interest on loan. Addition of normative loan has been considered at 70% of actual capitalization and repayment has been considered equivalent to depreciation as per Regulations.
- **Interest on working capital** - calculated as per derivation of normative working capital requirement and interest rates as provided in respective MYT Regulations
- **Return on Equity (ROE)** – at Base rate of RoE (14%) and additional RoE based on MTBF certification by SLDC – On approved normative equity amount
- **Tax** – Effective tax rate considering income tax paid as per actuals for 2022-23 and 2023-24.
- **Non-Tariff Income (NTI)** – at actuals excluding other income reflected in Profit and Loss Statement not to be considered under NTI as per MYT Regulations

The ARR derived in combination to the above after sharing of gains/losses, adjustments in fixed cost recovery due to Availability factor and auxiliary consumptions has been compared with the overall revenue earned during the year to arrive at the final true-up amount for the respective years.

The overall true-up for the FY 2022-23 and FY 2023-24 is provided in the table below:

Table 1: Actual Expense and Final Entitlement for FY 2022-23 (Rs. Crore)

Particulars	Revised Normative	Actual	Efficiency (Gain)/Loss	Sharing of efficiency (Gain)/Loss	Net entitlement
	A	B	C=B-A	D=1/3rd of (Gain)/Loss	E=A+D
Expenses side summary					
Return on Equity	1,632.00				1,632.00
Interest on Loan	1,386.57				1,386.57
Depreciation	2,107.69				2,107.69
O&M expenses	3,204.21	3,668.99	464.79	154.93	3,359.14
Pay revision arrears (Pay out of FY 18-19 2nd installement)					-
Pay revision		-			-
Water Charges		322.72			322.72
Other Charges		295.06			295.06
Other charges - Hydro colony related		2.70			2.70
Interest on Working Capital	1,828.70	1,475.10	-353.61	-235.74	1,592.97
IT Expenses		21.45			21.45
Less: Non-Tariff Income		61.53			61.53
Annual Fixed Charges					10,658.75
Income Tax		-			-
Hydro Incentive		14.18			14.18
Hydro Lease Rent		541.20			541.20
Fuel Cost	19,113.91	22,698.40	3,584.49	1,194.83	20,308.74
Aggregate Revenue Requirement					31,522.87
AFC Reduction					1,639.88
Net Revenue Requirement					29,882.99
Revenue from sale of power		26,976.20			26,976.20
Revenue loss due to higher auxiliary consumption				64.74	64.74
Revenue for true-up					27,040.95
Revenue Gap/(Surplus)					2,842.04
Revenue Gap/(Surplus) approved in MTR Order					-1,031.72
Net Revenue Gap/(Surplus) to be approved after final true-up					3,873.76

Table 2: Actual Expense and Final Entitlement for FY 2023-24 (Rs. Crore)

Particulars	Revised Normative	Actual	Efficiency (Gain)/Loss	Sharing of efficiency (Gain)/Loss	Net entitlement
	A	B	C=B-A	D=1/3rd of (Gain)/Loss	E=A+D
Expenses side summary					
Return on Equity	1,656.69				1,656.69
Interest on Loan	1,255.81				1,255.81
Depreciation	1,985.48				1,985.48
O&M expenses	3,333.59	4,215.00	881.41	293.80	3,627.39
Pay revision		289.62			289.62
Water Charges		454.03			454.03
Other Charges		292.68			292.68
Other charges - Hydro colony related		2.65			2.65
Interest on Working Capital	1,998.87	1,818.53	-180.34	-120.23	1,878.64
IT Expenses		28.89			28.89
Less: Non-Tariff Income		58.55			58.55
Annual Fixed Charges			-		11,413.33
Income Tax			-		-
Hydro Incentive		0.44			0.44
Hydro Lease Rent		531.70			531.70
Fuel Cost	19,329.63	20,856.47	1,526.84	508.95	19,838.57
Aggregate Revenue Requirement			-		31,784.03
AFC Reduction			-		1,097.70
Net Revenue Requirement			-		30,686.33
Revenue from sale of power		28,633.69			28,633.69
Revenue loss due to higher auxiliary consumption				63.42	63.42
Revenue for true-up			-		28,697.12
Revenue Gap/(Surplus)			-		1,989.21

3.2.4 Carrying Cost on the True-up amount

3.2.4.1 The Petitioner has proposed the following calculations for working out the carrying cost on the true-up amounts for FY 2022-23 and FY 2023-24:

Table 3: Summary of True-up and carrying cost on Revenue gap/surplus (Rs. Crore)

FY	Description	Year	FY15	FY16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Total Including Carrying Cost
		Rs Crore	14.45%	14.05%	10.79%	10.18%	9.89%	9.66%	8.57%	8.50%	9.30%	10.07%	10.45%	10.45%	
FY14	Bhusawal 4-5 (on a/c of LD capitalisation of Rs.20.90 Cr)	0.74	0.05	0.10	0.08	0.08	0.07	0.07	0.06	0.06	0.07	0.07	0.08	0.04	1.59
FY15		4.24		0.30	0.46	0.43	0.42	0.41	0.36	0.36	0.39	0.43	0.44	0.22	8.47
FY16		4.15			0.22	0.42	0.41	0.40	0.36	0.35	0.39	0.42	0.43	0.22	7.78
FY17		3.32				0.17	0.33	0.32	0.28	0.28	0.31	0.33	0.35	0.17	5.86
FY18		3.03					0.15	0.29	0.26	0.26	0.28	0.30	0.32	0.16	5.05
FY19		3.33						0.16	0.29	0.28	0.31	0.33	0.35	0.17	5.22
FY20		3.27							0.14	0.28	0.30	0.33	0.34	0.17	4.84
FY21		3.14								0.13	0.29	0.32	0.33	0.16	4.37
FY22		2.72									0.13	0.27	0.28	0.14	3.54
FY17	Koradi 8-10 (LD finalisation)	2.26				0.12	0.22	0.22	0.19	0.19	0.21	0.23	0.24	0.12	4.00
FY18		12.65					0.63	1.22	1.08	1.07	1.18	1.27	1.32	0.66	21.08
FY19		11.95					0.58	1.02	1.02	1.11	1.20	1.25	0.62		18.75
FY20		13.39							0.57	1.14	1.25	1.35	1.40	0.70	19.80
FY21		15.63								0.66	1.45	1.57	1.63	0.82	21.77
FY22		14.16									0.66	1.43	1.48	0.74	18.47
FY17	Pali 8 (UDL impact)	0.00				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FY18		0.15					0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.26
FY19		0.38						0.02	0.03	0.03	0.04	0.04	0.04	0.02	0.60
FY20		0.26							0.01	0.02	0.02	0.03	0.03	0.01	0.38
FY21		0.30								0.01	0.03	0.03	0.03	0.02	0.42
FY22		0.39									0.02	0.04	0.04	0.02	0.50
FY20	Impact of correction in opening balance of GFA, Equity and loan approved for Bhusawal U# 4-5	1.03							0.04	0.09	0.10	0.10	0.11	0.05	1.52
FY21		0.86								0.04	0.08	0.09	0.09	0.05	1.20
FY22		0.70									0.03	0.07	0.07	0.04	0.92
FY20	Impact of correction in opening balance of GFA, Equity and loan approved for Khaperkheda U# 5	4.65							0.20	0.40	0.43	0.47	0.49	0.24	6.87
FY21		7.93								0.34	0.74	0.80	0.83	0.41	11.04
FY22		7.30									0.34	0.73	0.76	0.38	9.52
FY22	Impact of correction in interest rate for Bhira Station	0.08									0.00	0.01	0.01	0.00	0.10
FY23	Erronous computation at table 7.1 of MTR Order (Cumulative revenue gap/(surplus) upto FY 2022-23)	2.17									0.20	0.22	0.23	0.11	2.93
FY23	CMAG (administrative expense)	5.01										0.25	0.52	0.52	6.31
FY24		3.41											0.18	0.18	3.76
FY22	Expenses towards the consumption of lubricants and consumables and commission to agents for FY 19-20 to FY 21-22	27.79									1.29	2.80	2.90	1.45	36.24
FY 23	Final True-up FY 22-23	3,873.76										194.95	404.81	202.40	4,675.93
FY 24	Final True-up FY 23-24	1,989.21											103.94	103.94	2,197.09
FY 25	Final True-up FY 24-25	730.17												38.15	768.32
Total		6,753.54	0.05	0.40	0.76	1.21	2.24	3.71	4.93	7.03	11.66	210.50	525.33	353.13	7,874.51

3.3 Provisional True-up for FY 2024-25

3.3.1.1 The summary of ARR and provisional true-up for FY 2024-25 is provided in the table below:

Table 4: Summary of ARR for FY 2024-25

Particulars	Revised Normative	Actual	Net entitlement
Expenses side summary			
Return on Equity	1,708.04		1,708.04
Interest on Loan	1,156.50		1,156.50
Depreciation	2,223.34		2,223.34
O&M expenses	3,482.12		3,482.12
O&M expenses - FGD	1.85		1.85
Pay revision		302.24	302.24
Wage Revision		78.06	78.06
Water Charges		454.03	454.03
Other Charges		213.51	213.51
Other charges - Hydro colony related		2.68	2.68
IT Expenses		19.69	19.69
Interest on Working Capital	1,850.28		1,850.28
Less: Non-Tariff Income		58.55	58.55
Annual Fixed Charges			11,433.78
Income Tax			
Hydro Lease Rent	523.53		523.53
Fuel Cost	22,529.65		22,529.65
Fuel Cost - FGD & SCR	113.94		113.94
SLDC - Legacy charges			23.61
Power Purchase Expenses		14.35	14.35
Aggregate Revenue Requirement			34,638.86
AFC Reduction\$			636.76
Net Revenue Requirement			34,002.11
Revenue from sale of power		33,261.94	33,261.94
Revenue loss due to higher auxiliary consumption			
Advance received towards power purchase		10.00	10.00
Revenue for true-up			33,271.94
Revenue Gap/(Surplus)			730.17

3.4 MYT for 5th Control Period – FY 2025-26 to FY 2029-30

3.4.1 Fuel Utilisation Plan

3.4.1.1 As per Regulation 40 of MERC Tariff Regulations 2024, MSPGCL has provided details of Fuel supply agreements and its plan to source coal from Bridge linkages, Gare Palma-II, cost plus coal and usage of imported coal. Besides, the above, the plan for coal beneficiation to the extent of 11.3 MMT has also been envisaged to improve the quality of coal. The same is likely to improve the operations of the stations.

3.4.2 Installation of Emission control system (FGD and SCR system) and its relevant cost

3.4.2.1 As per installation plan of FGD and SCR system at various stations during MYT period, following additional cost as per relevant Regulations of MERC (MYT) Regulations 2024 have been considered in projections for MYT period.

- Cost of Reagent
- O&M expenses
- Interest on working capital

3.4.2.2 Additional auxiliary energy consumption for Emission Control System have been considered as per 47.18 of MERC (MYT) Regulations 2024.

3.4.3 Operational Performance and MYT of the Control Period

3.4.3.1 The Petitioner has envisaged normative performance for all the stations except for the following:

- **SHR for Koradi 6** – Regulation 47.5 of the MERC (MYT) Regulations 2024 prescribes an SHR of 2622 kCal/kWh for Koradi Unit 6. However, the Petitioner submits that the SHR approved under the previous regulations accounted for both Koradi Units 6 and 7. Given that Koradi Unit 6 continues to operate following the retirement of Unit 7, the Petitioner has not considered the higher SHR of 2622 for the MYT projections. The guaranteed SHR for the unit is 2350 kCal/kWh which had been approved by the Hon'ble Commission. The Petitioner submits that even for the new generating stations, an allowance of 4.5% from the design SHR (5% as per MYT regulation 2019) is allowed in order to factor local operating conditions and deviations in overall quality of coal and associated parameters. Accordingly, it is requested that the normative SHR may kindly be considered as $2350 \times 1.045 = 2456$ kCal/kWh.
- **Auxiliary Consumption** - The Petitioner respectfully submits before the Hon'ble Commission to consider and approve the Auxiliary consumption norms as recommended in the CPRI Energy Audit reports for Chandrapur Units 3-7, Paras Units 3-4, Parli Units 6,7 & 8, Khaperkheda Units 1 to 4.
- **Availability** – For the target availability of Khaperkheda Units 1 to 4, the Petitioner requests the Hon'ble Commission to consider and approve as recommended in the CPRI Energy Audit reports. Additionally, for the Nashik and Bhusawal Units, the Petitioner requests the Hon'ble Commission to approve the target availability based on the historical data.

3.4.3.2 Basis the above, the energy charges (including the cost of reagent due to installation of Emission Control System) projected by the Petitioner are summarised below for reference:

Table 5: Projected Station wise Variable Charges (including cost of reagent) for 5th Control Period (Rs./kWh)

Station	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	5.37	5.64	5.92	6.22	6.53
Chandrapur Units 3 -7	4.61	4.85	5.18	5.44	5.70
Khaperkheda Units 1-4	4.55	4.80	5.00	5.16	5.38
Koradi Unit 6	4.02	4.19	4.36	4.87	5.07
Nashik Units 3-5	5.50	5.78	6.07	6.37	6.69
Uran	5.23	5.23	5.23	5.23	5.23
Paras Units 3-4	4.05	4.28	4.48	4.71	4.94
Parli Units 6-7	6.34	6.81	7.12	7.44	7.77
Khaperkheda Unit 5	3.54	3.72	4.02	4.22	4.42
Bhusawal Units 4-5	4.39	4.61	4.96	5.21	5.47
Koradi Units 8-10	3.53	3.68	3.93	3.91	3.79
Chandrapur Units 8-9	3.86	4.04	4.28	3.88	3.95
Parli Unit 8	6.28	6.74	6.90	7.20	7.52

3.4.3.3 The basic considerations for fixed cost in the MYT period are summarized below:

- The balance life considered is as per COD, in case of units which have yet to complete useful life (25 years in case thermal units and 35 years in case of hydro units) and in case of units which have already completed useful life or will be completing useful life during the next 5 years, it will be operational up to 31.03.2030.
- **O & M expense** - The O&M costs are projected as per norms approved in Regulations along with corrected pay revision amount approved in MTR Order, as per escalation rate based on latest available WPI and CPI indices numbers. Additionally, revision of labour wage rates which was approved recently, is claimed separately over and above the normative O&M cost. Further, the O&M costs for FGD/SCR which are expected to get commissioned during the period FY 2025-26 to FY 2029-30 are considered. O&M expenses for Koradi Unit 8-10 has been considered as per the suggestions provided in CEA report.
- **Depreciation** - For projections regarding Depreciation, the closing GFA for regulatory assets as on 31.03.2025 will be the opening GFA for 01.04.2025 and subsequent asset addition as per the Capital expenditure plan will be considered for year-on-year Depreciation computation.
- **Interest on Loan** – As per closing approved loan portfolio of FY 2024-25 and year on year additions as per Capex plan. The rate of interest will be as per provisions mentioned under the MERC (MYT) regulations, 2024.
- **Interest on Working Capital** – IoWC will be claimed at normative level as per provisions under MERC (MYT) regulations, 2024. Additionally, the loss of interest due to payment of outstanding dues in 48 installments will also be claimed as normative IoWC entitlement.

- **ROE** – ROE is based on closing regulatory equity for FY 2024-25 and equity additions as per Capex plan. Rate of return on equity as per MERC (MYT) regulations, 2024.
- **NTI** – Based on actuals of FY 2023-24

3.4.3.4 The Summary of ARR for the 5th Control Period for the existing units is provided in the below tables.

Table 6: Projected station wise Energy charges for 5th MYT Control period (Rs. Crore)

Stations	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	704.29	739.47	776.45	815.27	856.03
Chandrapur Units 3 -7	5,615.42	5,919.34	6,240.68	6,548.51	6,863.62
Khaperkheda Units 1-4	2,248.67	2,374.42	2,475.64	2,552.48	2,662.60
Koradi Unit 6	493.65	513.95	535.28	597.53	623.03
Nashik Units 3-5	2,169.52	2,278.00	2,391.95	2,511.43	2,636.94
Uran	1,220.41	1,220.41	1,223.76	1,220.41	1,220.41
Paras Units 3-4	1,334.63	1,409.46	1,478.50	1,551.10	1,627.39
Parli Units 6-7	2,115.14	2,270.95	2,372.70	2,479.62	2,591.62
Khaperkheda Unit 5	1,239.38	1,301.31	1,388.26	1,456.57	1,528.31
Bhusawal Units 4-5	3,070.83	3,224.43	3,424.14	3,598.96	3,776.71
Koradi Units 8-10	4,892.52	5,097.36	5,372.83	5,353.84	5,191.24
Chandrapur Units 8-9	2,703.85	2,825.26	2,956.39	2,681.40	2,730.73
Parli Unit 8	1,059.32	1,137.27	1,164.63	1,215.54	1,269.00
Total	28,867.62	30,311.64	31,801.19	32,582.66	33,577.62

Table 7: Projected station wise Annual Fixed Charges for 5th Control Period (Rs. Crore)

Particulars	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	211.28	227.32	320.13	330.32	341.82
Chandrapur Units 3 -7	1,526.55	1,681.88	1,869.79	1,960.15	2,041.25
Khaperkheda Units 1-4	952.96	923.53	1,076.07	1,135.40	1,175.35
Koradi Unit 6	349.94	362.59	399.23	413.59	428.31
Nashik Units 3-5	537.61	600.09	647.51	675.90	702.38
Uran	258.60	258.47	278.47	298.87	318.85
Paras Units 3-4	571.91	594.12	737.99	756.01	771.76
Parli Units 6-7	626.21	656.48	676.87	713.96	750.38
Khaperkheda Unit 5	658.17	679.12	667.54	684.15	700.74
Bhusawal Units 4-5	1,111.93	944.97	1,359.79	1,399.60	1,442.52
Koradi Units 8-10	2,438.43	2,486.42	2,781.14	2,795.18	2,756.67
Chandrapur Units 8-9	1,254.13	1,279.48	1,317.56	1,318.90	1,141.96
Parli Unit 8	449.45	458.86	464.65	467.76	465.18
SHP	208.87	222.53	238.87	253.35	266.06
Bhira	15.88	16.44	16.90	18.44	19.72
Koyana	204.64	214.83	225.53	236.78	284.81
Tillari	28.08	29.36	30.10	31.33	32.57
Total	11,404.65	11,636.50	13,108.12	13,489.69	13,640.31

Table 8: Summary of Total ARR of stations for 5th Control Period (Rs. Crore)

Particulars	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	915.56	966.79	1096.57	1,145.59	1,197.85
Chandrapur Units 3 -7	7,141.97	7,601.22	8110.47	8,508.66	8,904.87
Khaperkheda Units 1-4	3,201.63	3,297.95	3551.71	3,687.87	3,837.95
Koradi Unit 6	843.59	876.54	934.51	1,011.12	1,051.34
Nashik Units 3-5	2,707.14	2,878.08	3039.46	3,187.34	3,339.33
Uran	1,479.02	1,478.88	1502.22	1,519.29	1,539.26
Paras Units 3-4	1,906.54	2,003.59	2216.49	2,307.11	2,399.15
Parli Units 6-7	2,741.35	2,927.43	3049.57	3,193.58	3,342.00
Khaperkheda Unit 5	1,897.54	1,980.43	2055.80	2,140.72	2,229.05
Bhusawal Units 4-5	4,182.76	4,169.41	4783.92	4,998.55	5,219.23
Koradi Units 8-10	7,330.95	7,583.79	8153.97	8,149.03	7,947.90
Chandrapur Units 8-9	3,957.98	4,104.74	4273.95	4,000.29	3,872.69
Parli Unit 8	1,508.77	1,596.13	1629.27	1,683.30	1,734.17
SHP	435.22	460.45	482.40	482.28	491.68
Bhira	15.88	16.44	16.90	18.44	19.72
Koyna	493.71	497.62	502.05	507.04	548.80
Tillari	28.08	29.36	30.10	31.33	32.57
Total	40,787.69	42,468.84	45,429.36	46,571.55	47,707.55

3.5 Prayers

3.5.1 The Petitioner respectfully prays the Hon'ble Commission to:

- Admit this Petition;
- Allow Petitioner to submit additional information as may be required by the Hon'ble Commission
- Grant an expeditious hearing of this Petition;
- Hon'ble Commission in Order in case no 227 of 2022 & case no 132 of 2023, has allowed the issue in-principle and considering the marginal impact of these issues, allowed to claim the amount in the MYT Petition. Hence the Petitioner request to approve the impact on AFC along with carrying cost on such amount.
- Consider the submission made in context of **FY 2022-23** and approve the Annual Revenue Requirement and final truing up for the year, along with the relaxations in following key specific issues by exercising the powers available with the Hon'ble Commission under MYT Regulations 2019 for "Power to Relax"
 - Relaxation in target availability factor for Uran GTPS on account of Gas supply shortages,
 - Relaxation in Target availability for Khaperkheda Units # 1 to 4 on the basis of CPRI report,
 - Relaxation in Auxiliary consumption norm for Khaperkheda Units # 1 to 4, Chandrapur Units # 3 to 7, Paras Units # 3,4 & Parli Units # 6,7,8 on the basis of CPRI reports. With reference to the SHR of Koradi 6, the normative SHR may

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- kindly be considered as 2456Kcal/Kwh (Guaranteed SHR x allowance of 4.5% from the design SHR)
- d) Relax GCV As Received deviation as “GCV Billed less 750 kCal/kWh”
 - e) In view of CEA study submitted in respect of Koradi TPS (3x660 MW) allow actual O&M cost as claimed
- vi. Consider the submission made in context of **FY 2023-24** and approve the Annual Revenue Requirement and final truing up for the year, along with the relaxations in following key specific issues by exercising the powers available with the Hon’ble Commission for under MYT Regulations 2019 “Removal of Difficulties” & “Power to Relax”
- a. Relaxation in target availability factor for Uran GTPS on account of Gas supply shortages,
 - b. Relaxation in Target availability for Khaperkheda Units # 1 to 4 on the basis of CPRI report,
 - c. Relaxation in Auxiliary consumption norm for Khaperkheda Units # 1 to 4, Chandrapur Units # 3 to 7, Paras Units # 3,4 & Parli Units # 6,7,8 on the basis of CPRI reports. With reference to the SHR of Koradi 6, the normative SHR may kindly be considered as 2456Kcal/Kwh (Guaranteed SHR x allowance of 4.5% from the design SHR)
 - d. Relax GCV As Received deviation as “GCV Billed less 750 kCal/kWh”.
 - e. In order to resolve Bill due date issue aroused after 2nd amendment to MYT 2019 dtd 08.06.2023, request Hon Commission to exercise power to relax and allow receivable period 75days for normative working capital calculation w.e.f 08.06.2023.
 - f. In view of CEA study submitted in respect of Koradi TPS (3x660 MW) allow actual O&M cost as claimed
- vii. Consider the submission made in context of **FY 2024-25** and approve the revised Annual Revenue Requirement and provisional final truing up for the year, along with the relaxations in following key specific issues by exercising the powers available with the Hon’ble Commission under MYT Regulations 2019 for “Power to Relax”
- a. Relaxation in target availability factor for Uran GTPS on account of Gas supply shortages,
 - b. Relaxation in Target availability for Khaperkheda Units # 1 to 4 on the basis of CPRI report,
 - c. Relaxation in Auxiliary consumption norm for Khaperkheda Units # 1 to 4, Chandrapur Units # 3 to 7, Paras Units # 3,4 & Parli Units # 6,7,8 on the basis of CPRI reports, Relaxation with reference to the SHR of Koradi 6, the normative SHR may kindly be considered as 2456Kcal/Kwh (Guaranteed SHR x allowance of 4.5% from the design SHR).
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- d. Relax GCV As Received deviation as “GCV Billed less 750 kCal/kWh”,
 - e. In view of CEA study submitted in respect of Koradi TPS (3x660 MW) allow actual O&M cost as claimed.
 - f. In order to resolve Bill due date issue aroused after 2nd amendment to MYT 2019 dtd 08.06.2023, request Hon Commission to exercise power to relax and allow receivable period 75days for normative working capital calculation.
 - viii. Consider the submissions made in the context of procurement of alternate power during FY 2024-25 in compliance to the directions from Government of Maharashtra under Section 11 of Electricity Act, 2003 and allow pass-through of the additional burden due to procurement of such alternate power as extraordinary expenses and revenue in ARR calculations.;
 - ix. Consider the submissions made in the context of approval of expenses for FY 2022-23 & FY 2023-24 towards Hydro Colony related expenses as per Regulation 49.1 (c) of the MYT Regulations, 2019 and accordingly approve the expenses over-and-above the normative O & M costs;
 - x. Not to consider deduction of LPS and interest on LPS amount from actual interest on working capital;
 - xi. Consider and allow loss of interest incurred due to implementation of Electricity (Late Payment of Surcharge and related matters) rule 2022, provisions for liquidation of outstanding dues and allow normative IoWC by adding loss of interest claims for True-up period FY 22-23, 23-24 Provisional true up FY 24-25 and MYT projection period FY 25-26 to 29-30.
 - xii. Consider the submissions made in the context of approval of expenses for FY 2022-23 & FY 2023-24 towards IT related Opex costs as per Regulations 47.1 (g) & 49.1 (f) of the MYT Regulations, 2019 and accordingly approve the expenses over-and-above the normative O & M costs;
 - xiii. Consider the submissions regarding Fuel Utilisation in FY 2022-23 and FY 2023-24 and approve the Fuel Utilisation Plan for FY 2025-26 to FY 2029-30 submitted in the petition,
 - xiv. Consider the submissions made by MSPGCL in reference to normative parameters approved namely for Target AVF for Nashik, Bhusawal Unit # 3 and Khaperkheda Units # 1 to 4 , Auxiliary Consumption for Khaperkheda Units # 1 to 4, Chandrapur Units # 3 to 7, Paras , Parli units # 6,7,8 considering the CPRI reports and historical data and provide necessary relaxations sought in the performance parameters , by exercising the powers available with the Hon’ble Commission under MYT regulations 2024 for “Removal of Difficulties” & “Power to Relax” for the period FY 2025-26 to FY 2029-30;
 - xv. Consider the difficulties raised by MSPGCL in reference to provisions in Regulation 50.6 of MYT Regulations, 2019 regarding consideration of “As billed GCV” for Energy Charge computation and provide necessary clarifications towards
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- consideration of total moisture for GCV (As Received Basis) calculation consideration and remove the difficulty in working out GCV of coal for calculation of energy charge , by exercising the powers available with the Hon'ble Commission under MYT regulations 2024 for "Removal of Difficulties" for the period FY 2022-23 to FY 2024-25;
- xvi. Consider the submissions made in context of projections for Annual Revenue Requirements and projected tariff for the years under 5th Control Period i.e. FY 2025-26 to FY 2029-30 and approve the same;
 - xvii. Consider the specific submissions made in the context of projections for
 - a. Claim for expenses towards Hydro Colony related expenses as per Regulation 50.1 (c) of the MYT Regulations, 2024
 - b. Claim for expenses towards IT related Opex costs as per Regulations 48.1 (g) & 50.1 (f) of the MYT Regulations, 2024
 - c. Claims for expenses towards "Ash Transportation costs as per directions from MoEF, CC and MoP
 - d. Approve the expenses prepared for preparation of Flexibilisation of units as claimed and accordingly approve the expenses over-and-above the normative O & M costs;
 - e. Approve the special allowance for Uran GTPS & Hydro power stations based on operational norms as specified under the MYT Regulations.
 - f. Grant the special allowance for eligible Thermal power plants by adopting an approach of providing relaxed performance norms and applying the prevailing O&M cost methodology as per the submission and with the permission to surrender of the special O&M allowance prior to the MS&EDCL MTR ,
 - xviii. Consider the submissions made in the context of the issue related to non-installation of "Class 0.2S" Current Transformers , as provided under the Section 78.1.11 of the State Grid Code, 2020 Part-H Metering Code , for measurement of energy at Generation- Transmission (G-T) interface point and its adverse impact on measurement of energy sent out at <G> to <T> interface & thus on Auxiliary Power Consumption as well as Availability Factor computations for MSPGCLs' power stations on the basis of specific observations for Koradi Units # 8 to 10 and issue necessary directions to State Transmission Utility (STU) to expedite actions for installation of "Class 0.2 S" CTs at all interface points and also to provide access to metered data for the AMR meters installed for better monitoring & control of generation output in reference to the Scheduled generation;
 - xix. Consider the submissions made in the context of erroneous measurement of energy at Koradi Units # 8 to 10 on account of non-installation of "Class 0.2S" CTs at <G> to <T> interface points and allow the claim towards loss of opportunity due to lower measurement of net sent out generation & resultant higher % Auxiliary Consumption and lower Plant Availability Factor;
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- xx. Consider the submissions made in the context of recovery of expenses incurred by MSPGCL for FY 2022-23 & FY 2023-24 on the Solar power plants under Chief Minister Agricultural Feeder Scheme and approve the same;
 - xxi. Consider the submissions made regarding finalisation of liquidated damages for Bhusawal Units # 4,5; Koradi Units # 8 to 10; Parli Unit # 8 project works and approve the differential capital cost & corresponding recoveries of differential fixed charges for the period since COD for the respective units along with the carrying cost. Also allow extension for cut-off date upto 31.03.2025 considering difficulties submitted.
 - xxii. Allow MSPGCL to submit relevant data post reconciliation of issues related to LPS along with any reworking of previous year True-up amount;
 - xxiii. Allow normative O&M expenses based on past actual O&M expenses rather than True-up amounts;
 - xxiv. Allow the incremental O&M expenses for Koradi Unit 8-10 for FY 2020-21 and FY 2021-22 considering CERC norms;
 - xxv. Consider CAPEX rolling plan for FY 2025-26 to FY 2029-30 submitted as annexure also condone the delay in submission of CAPEX plan;
 - xxvi. Consider the submissions made regarding directives to be given to MSEDCL regarding resolution of pending billing reconciliation and previous period LPS issues and issue appropriate directives;
 - xxvii. Consider the submissions made in the context of under-recovery of part of approved fixed costs and lease rent for Ghatghar PSS for FY 2017-18 & FY 2018-19 due to non-payment of the same from MSEDCL despite of clarifications given by MSPGCL and thus requests to direct MSEDCL for payment of the same along with permission to MSEDCL for recovery of the same in their ARR;
 - xxviii. Consider the submissions made in the context of compensation claims from TPC-G as per the MERC order dated 03.11.022 in case No. 29 of 2022;
 - xxix. Consider the submissions made in the context of recovery of “RLDC Legacy charges” claimed by MSLDC for Oct’2023 to Sept’2024 and allow the same as pass-through expense for FY 2024-25 & accordingly consider the same in the provisional true-up for FY 2024-25;
 - xxx. Condone any shortcomings/ deficiencies in the petition and allow MSPGCL to submit additional information/ data at a later stage as may be required;
 - xxxi. Provide the workable excel model used by the Hon’ble Commission for approval of True up amount and tariff of the Petitioner.

4 Background

4.1 Generation Capacity of MSPGCL

- 4.1.1.1 The Maharashtra State Power Generation Company Limited (hereinafter referred to as MSPGCL or Petitioner) is a Company formed under the Government of Maharashtra General Resolution No. ELA- 003/P.K.8588/Bhag-2/Urja-5 dated January 24, 2005 with effect from June 6, 2005. The company is operating under the provisions envisaged in the Electricity Act 2003.
- 4.1.1.2 MSPGCL is the largest state generation company in the country with an overall operating capacity of 12791 MW. MSPGCL own and operates fleet of 27 thermal units of 210 MW, 250 MW, 500 MW, 660 MW having capacity of 9540 MW and 6 gas units having capacity of 672 MW generating stations situated at different locations in the state of Maharashtra. MSPGCL also operates hydel generation stations owned by the Water Resource Department, Govt. of Maharashtra on leased basis with an aggregate capacity of 2579 MW. The operational capacity of MSPGCL is provided in the table below:

Table 9: Operating capacity of MSPGCL FY 2022-23 to FY 2024-25

Sr. No.	Power Station	Units and Size (MW)	MW
A. Thermal – coal based			
1	Koradi-6,8,9,10*	1 x 210 + 3 x 660	2190
2	Nashik-3,4,5	3x210	630
3	Parli- 6, 7, 8	3x250	750
4	Bhusawal- 3,4,5	1x210 + 2x 500	1210
5	Chandrapur- 3, 4, 5, 6, 7, 8,9	2x210 + 5x500	2920
6	Khaperkheda-1, 2, 3, 4, 5	4x210 + 1x500	1340
7	Paras-3,4	2x250	500
	Sub-total	76%	9540
B. Thermal – Gas based			
1	Gas Turbine -5,6,7,8	4x108	432
2	Waste Heat recovery - A0 , B0	2x120	240
	Sub-total	5%	672
C. Hydro power stations			
1	Koyna (KGSC)	(4x70)+(4x80)+(4x80)+(4x250)+(2x18)	1956
2	Small Hydro Stations (Ex. Bhira, Tillari&Vaitarna)		173
	Bhira	2 x 40	80
	Tillari	1 x 60	60
	Vaitarna	1 x 60	60
3	Ghatghar Pumped Storage Station	2x125	250
	Sub-total	19%	2579
Mahagenco Total			12791

- 4.1.1.3 For the purpose of tariff determination, Bhusawal Unit 3, Nashik Unit 3-5, Khaperkheda unit 1-4, Koradi Unit6, Chandrapur Units 3-7 and Uran Gas based units are treated as old stations and generating stations that achieved COD on or after August 26, 2005 are considered as new stations.

4.2 **Applicable Tariff Regulations**

- 4.2.1.1 MSPGCL submitted its MYT Petition for the True Up for FY 2017-18 and FY 2018-19, provisional True up for FY 2019-20 in accordance with relevant provisions of the MERC (MYT) Regulations 2015 and Multi Year Tariff determination for the 4th Control Period FY 2020-21 to FY 2024-25 in accordance with relevant provisions of MERC (MYT) Regulations, 2019. The Hon'ble Commission issued the Order for approval of MYT Petition vide Order in Case No. 296 of 2019 dated 30th March, 2020.
- 4.2.1.2 MSPGCL preferred the review on MERC Order No. 296 of 2019 (Case No. 180 of 2020). The Hon'ble Commission issued the Order on above referred Review Petition on 1st March, 2021. MSPGCL had also preferred an appeal (No. 353 of 2020) before Hon'ble ATE against Hon'ble Commission's Order dated 30.03.2020 (Case No 296 of 2019) and the said appeal is currently sub-judice before the Hon'ble ATE.
- 4.2.1.3 MSPGCL filed a Mid-Term Review Petition covering Truing up of expense for FY 2019-20, FY 2020-21 and FY 2021-22, provisional True Up for FY 2022-23 and revised ARR and tariff projections for FY 2023-24 & FY 2024-25. The Order in the said case (Case No. 227 of 2022) was passed by the Hon'ble Commission on 31st March, 2023 (Hereinafter referred to as 'MTR Order').
- 4.2.1.4 MSPGCL filed a review petition (Case No. 132 of 2023) on the MTR Order which was disposed-off by the Hon'ble Commission on 1st February, 2024. MSPGCL had also preferred an appeal on the said MTR Order (Appeal No. 501 of 2023). The said appeal is currently sub-judice before the Hon'ble ATE.
- 4.2.1.5 The Hon'ble Commission had notified the MERC Terms and Conditions of Tariff Regulations, 2024 on 19th August, 2024. In line with the provisions of the said regulations, MSPGCL has to file the MYT petition covering True up of FY 2022-23, FY 2023-24, provisional true up for FY 2024-25 and approval of Aggregate Revenue Requirement and Tariff for the 5th control period i.e., FY 2025-26 to FY 2029-30.

4.3 **Scope of this Petition**

- 4.3.1.1 MSPGCL by means of this instant petition is submitting the following for the kind consideration of the Hon'ble Commission:
 - a. True-up for FY 2022-23 and FY 2023-24 based on Audited Accounts and Tariff Regulations 2019
 - b. Provisional True-up for FY 2024-25 – based on half yearly actuals (April to September) and projections for the balance period (October to March) on the basis of Tariff Regulations 2019.
 - c. Aggregate Revenue Requirement and Tariff for fifth Control Period, i.e. FY 2025-26 to FY 2029-30 based on principles provided in the MERC (MYT) Regulations 2024 and appropriate assumptions detailed in this Petition.

4.4 Other Petitions which have direct bearing on this Petition:

- 4.4.1.1 The Petitioner has already filed following Petitions before the Hon'ble Commission which have direct bearing on this Petition.
- a) Petition for quashing/revising the weekly VSE (Virtual State Entity) bills raised by MSLDC to Koyna HPS for reasons not attributable to Koyna HPS operations as VSE and modifying the DSM price vector for regulated Hydro generators operated as VSE filed on 15.05.2024 Case No. 84 of 2024.
 - b) Petition filed for change in law claims for Case IV, Phase III for the period of 24.09.2022 to 31.03.2024 on 02.04.2024 in Case No. 62 of 2024.
 - c) Petition filed for determination of tariff of Solar PV power plant of 25 MW of Sakri II on 12.06.2024 in Case No.87/DT/2024.

4.5 LPS issue and pendency of reconciliation between MSPGCL and MSEDCL:

4.5.1 Background:

- 4.5.1.1 MSPGCL's claim on the issue of LPS and Interest on Working Capital Loan can broadly be divided into the following heads.
- a. Payment of LPS/ Carrying Cost due to the impact of Late Payment Surcharge Rules, 2022 notified by the Ministry of Power, GoI;
 - b. Difference in the 'due date' under the PPA and the period for which interest on working capital is granted; and
 - c. Different methodology adopted while computing the normative interest on working capital, viz. interest paid is computed on actual basis while LPS to be reduced from actual IoWC (as per MERC (MYT) Regulations) is considered on accrual basis, in books of accounts.
- 4.5.1.2 In this context, it is relevant to note that, billing and payments between MSPGCL and MSEDCL towards power supplied by MSPGCL to MSEDCL is governed by PPA dated 01.04.2009 (along with Addendum dated 24.12.2010) ("PPA"). A copy of relevant pages of the PPA dated 01.04.2009 is annexed hereto and marked as Annexure-2
- 4.5.1.3 The Petitioner/ MSPGCL has been regularly carrying out the working for the LPS bills as and when the payments are received from MSEDCL against the various bills raised by MSPGCL, in terms of Article 9 thereof.

4.5.2 Late Payment Surcharge Rules, 2022 notified by Ministry of Power, GoI:

- 4.5.2.1 Ministry of Power ("MoP"), Government of India ("GoI"), notified Electricity (Late Payment Surcharge) Rules, 2021 and Electricity (Late Payment Surcharge and Related matters) Rules, 2022 on 22.02.2021 and 03.06.2022 respectively.
- 4.5.2.2 As per Rule 5 of the LPS Rules 2022, a distribution licensee is required to communicate, within a period of 30 days from the promulgation of the said Rules (i.e., by 03.07.2022), the outstanding dues and the number of instalments

in which such dues are to be paid. Relevant extracts of Rule 5 is reproduced herein below for ease of reference:

“5. Liquidation of arrears

.....

(2) The distribution licensee shall communicate, in writing, to the generating company, transmission licensee, electricity trading licensee, as the case may be, the outstanding dues and number of instalments in which, the outstanding dues would be paid and this communication shall be sent within thirty days of the promulgation of these rules....

Provided that if distribution licensee fails to communicate to generating company, transmission licensee, electricity trading licensee, as the case may be, the rescheduling of dues in accordance with sub-rule (1) of rule 5 within thirty days, these provisions shall not be applicable to it:

Provided further that the distribution licensee may make payment in a month more than the equated monthly instalment for the month.

Provided also that the first due date for payment of the equated monthly instalment shall be the fifth day of the immediate month that comes after forty-five days from notification of these rules and due date for all subsequent equated monthly instalments shall be due on fifth day of date the subsequent months. ”

- 4.5.2.3 Consequently, MSEBHCL initiated efforts to reach a consensus amongst MSEDCL, MSPGCL and MSETCL regarding outstanding dues (i.e., both the principal amount and the LPS amount as on such date).
- 4.5.2.4 However, MSEDCL of its own accord on 05.08.2022 (i.e., after the stipulated period of 30 days) and with an intent to avail of payment option under LPS Rules, 2022, arbitrarily communicated outstanding dues of Rs. 13,801 Crores as of 03.06.2022 without final reconciliation. MSEDCL also fairly stated that the reconciliation of the same is under process, and hence admitted that this is not the final amount. The said reconciliation is still pending and has not been completed. Hence, there remains a significant discrepancy between the outstanding amount calculated by MSEDCL and the amount determined by MSPGCL. A comparison of MSPGCL's claim of the outstanding dues as of 03.06.2022 and MSEDCL's understanding (stated in its letter dated 05.08.2022) is set out below for ease of reference:

Table 10: Outstanding dues as of 03.06.2022

Particulars	Total (in Rs. Cr)
As per MSEDCL's working	13,801.00
As per MSPGCL's working	27,163.29
Difference	13,362.29

- 4.5.2.5 A copy of MSEDCL's letter dated 05.08.2022 and a copy of MSPGCL's follow up letter dated 26.05.2023 to MSEDCL are annexed hereto and marked as Annexure-3.
- 4.5.2.6 Considering the outstanding dues amount of Rs. 13,801 Crores, MSEDCL has from 05.08.2022 commenced the payment thereof in 48 monthly instalments (being Rs. 287.52 Crores each) for liquidation of outstanding dues. Further, MSEDCL is not paying any interest/ carrying cost/ LPS on the said amount as required under Provisos to Rule 5.
- 4.5.2.7 Without prejudice to MSPGCL's final claim of outstanding dues from MSEDCL (which admittedly has not been reconciled yet), it is submitted that MSPGCL also deprived of (interest) carrying cost over the period of 48 months of recovery of outstanding dues through Equated Monthly Instalments ("EMIs").
- 4.5.2.8 The concept of 'time value of money' is premised on the principle that money available at present time is worth more than the same amount in the future, due to its potential earning capacity through investments or the inflation that decreases the value of the money. The actual time value of money gets lost if the payment/money is delayed and if a person is deprived of the use of money to which he is legitimately entitled then it has a right to be compensated for such a deprivation through interest. It has been held time and again highlighted that carrying cost is the compensation for time value of money, for the money denied at the appropriate time, in the following judgments:
- Uttar Haryana Bijli Vitran Nigam Ltd. & Anr. v. Adani Power (Mundra) Ltd. & Anr., 2023 2 SCC 624 [Para 20, 22 and 24]
 - SLS Power Ltd. v. APERC & Ors., 2012 SCC OnLine APTEL 209 - [Para 35.5-35.6]
 - Torrent Power Ltd. v. GERC & Ors., 2019 SCC OnLine APTEL 110 - [Para 9.5]
- 4.5.2.9 In view of the above, settled position of law that carrying cost must accompany any delayed payment (including that paid through EMIs), MSPGCL submits that the following is loss of interest (i.e., carrying cost) (with interest at 10.40% over a period of 48 months on the without prejudice amount of Rs. 13,801 Crores):

Table 11: Loss of Interest over a period of 48 months

S. No.	FY	Loss of Interest (in Cr.)
1	FY 2022-23	1114.08
2	FY 2023-24	1,003.96
3	FY 2024-25	641.93
4	FY 2025-26	285.52
5	FY 2026-27	14.91
Total		3059.41

- 4.5.2.10 Considering that MSEDCL presently is not paying the above interest to MSPGCL on the outstanding due of Rs. 13,801 Crores (as per MSEDCL) and the precarious financial position of MSPGCL, MSPGCL is at a loss of interest (as also LPS) for said amount through 48 months. However, MSPGCL's obligations to arrange

payments for the shortfall of funds to the extent of this amount continue. Hence, it is requested that this Hon'ble Commission suitably allows compensation/ relaxation on account of loss of interest on working capital to MSPGCL. Non-granting of relief to MSPGCL would severely impact its financial position and cash flows. Further, in line with the methodology adopted by Hon'ble commission for IoWC computation with LPS bills, it shall be prudent to consider loss of interest as per as per the provision of LPS Rules 2022 to maintain consistency in methodology.

4.5.3 Due date issue after 2nd Amendment dated 08.06.2023 to MYT Regulations, 2019:

4.5.3.1 MSPGCL submits that a difference has emerged between due date as per PPA/MoP rules and Tariff Regulations. In this regard, it is submitted that:

- Clause 9.2 of PPA dated 01.04.2009 specifies that the payment due date is 60 days.
- In line with this, the MERC (MYT) Regulations, 2011 provided for levy of DPS/ LPS if payment was delayed beyond 60 days from date of billing. Hence, upto 31.03.2016, PPA provisions regarding due date were consistent with regulatory provisions.
- On 08.12.2015, Hon'ble Commission notified MERC (MYT) Regulation 2015 which provided for levy of DPS if payment is delayed beyond 30 days from date of billing:

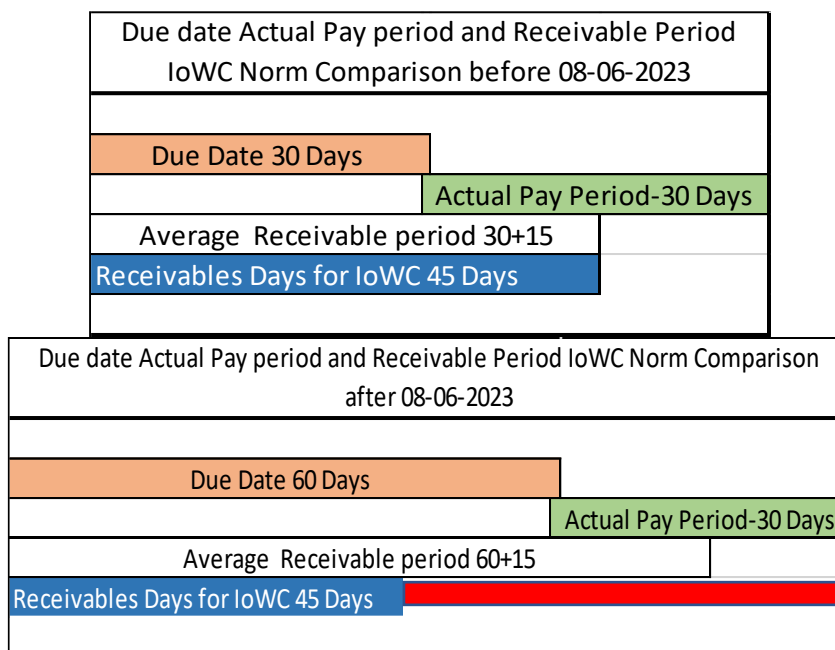
"36. Delayed Payment Charge and Interest on Delayed Payment—

36.1 In case the payment of bills of generation Tariff or transmission charges or MSLDC Fees and Charges by the Beneficiary is delayed beyond a period of 30 days from the date of billing, Delayed Payment Charge at the rate of 1.25% per month on the billed amount shall be levied for the period of delay by the Generating Company or the Transmission Licensee or MSLDC, as the case may be, notwithstanding anything to the contrary as may have been stipulated in the Agreement or Arrangement with the Beneficiaries."

- In view of said revision in due date from 60 days to 30 days, MSPGCL through its Board Resolution acknowledged need for amendment of PPA. This was communicated to MSEDCL vide letter dated 29.06.2018.
- Furthermore, MSPGCL considered the "Due date" of 30 days for the bills raised on MSEDCL after 01.04.2016, i.e. from the date on which the MYT Regulations, 2015 became effective.
- Though MSEDCL had not taken any steps to formally amend the agreement in writing, it acted in accordance with the due date stipulation of 30 days prescribed in MERC (MYT) Regulation 2015 & 2019 and accepted the Petitioner's energy bills with Due date for 30 days, for the period between 01.04.2016 to 01.11.2023. This practice implicitly signifies deemed acceptance to the Petitioner's request & led to an implied amendment in the Power Purchase Agreement (PPA) to align with the revised bill due date of 30 days.
- Considering such deemed amendment for providing due date of 30 days, MSPGCL continued to consider due date of 30 days. Thereafter, MERC (MYT)

Regulation 2019 provided for due date of 30 days. It was later amended on 08.06.2023 to define "Due Date" to be as specified in PPA, and if not specified then 45 days from presentation of bill.

- MSEDCL has objected to due date of 30 days stating that original PPA clause was not amended and thus Due Date of 60 days as per PPA dated 01.04.2009 will prevail from 08.06.2023.
- Without prejudice, it is submitted that even if due date is considered to be 60 days after presentation of bill, IoWC is being considered for only 45 days of receivables. Therefore, there is a gap of 15 days, for which MSPGCL is not being compensated.
- MSEDCL generally starts paying near to due date and total monthly dues were expected to be received next one month. Average period of receipt is additional 15 days after due date. In the same line if due date is considered to be 60 days, then receivable period for IoWC calculation should be 75 days.
- The graphical presentation for the above-mentioned anomaly shown below.



- In this regard, MSPGCL had filed Case No. 42/MP/2024 for seeking relaxation through amendment / modification to Regulation 32 (Interest on working capital) of MERC MYT Regulation 2019. MSEDCL in its submission in Case No. 42/MP/2024 had submitted as follows:

"However, it is submitted that in case the request of the Petitioner to amend/ modify the Regulation 32.1 of MERC (MYT) Regulations 2019 to align the provisions of receivables in IoWC formula to reflect 60 days or more, consistent with the revised definition of 'Due date' as outlined in the MERC (MYT) (Second Amendment) Regulation 2023, is allowed, the corresponding effect of additional burden of interest on working capital on Petitioner due to such revision may be allowed to be passed through to consumers by the Petitioner."

- The above submission of MSEDCL, implies that MSEDCL has no objection to align the provisions of receivables in IoWC formula to reflect 60 days or more, consistent with the revised definition of 'Due date' as outlined in the MERC (MYT) (Second Amendment) Regulation 2023.
- To resolve this regulatory anomaly, MSPGCL requests Hon'ble Commission to exercise Power to Relax and allow receivable period of 75 days for normative working capital calculations with effect from 08.06.2023 and issue necessary directions in this regard.

4.5.3.2 As to the reasons for disparity between MSPGCL's and MSEDCL's workings on outstanding dues (which has further caused hardship to MSPGCL), the following is noteworthy:

Methodology for appropriation of receipts against outstanding Principal and LPS amount:

- 4.5.3.3 As stated above, the differences between the amount payable as per MSPGCL's calculations and MSEDCL's calculation is of Rs. 13,362,29 Crore. Out of the said amount, an amount of approximately Rs. 500 Crores is towards non-consideration of few bills towards and unilateral settlement of dues towards legacy issues related to consumers in MSPGCL's premises. These deductions were in an unilateral manner without any communication or justification. Thus, an amount of approx. Rs. 12,862 Crores is to different methodology adopted by MSEDCL and MSPGCL towards appropriation of outstanding dues. Since the PPA itself expressly does not stipulate how payment is to be appropriated, MSPGCL appropriated MSEDCL's payments towards outstanding LPS first, followed by the principal amount. This is in line not only with prudent industry norms in the sector (including PPAs of MSEDCL and NTPC) but also in the finance sector.
- 4.5.3.4 Until 2019, MSEDCL never raised any query/ objection on any LPS bill raised by MSPGCL. Thereby, MSEDCL by its conduct had accepted such arrangement. It is only in August, 2019 that MSEDCL communicated that there is a vast difference in LPS calculated by MSPGCL and LPS calculated by MSEDCL. In the same communication, MSEDCL mentioned that MSEDCL is appropriating the payment first against principal amount and then against accumulated interest (i.e. LPS). MSPGCL immediately requested MSEDCL to provide support documents / rationale for the proposed methodology regarding adjustments of receipts against outstanding principal first and balance if any, against the LPS due amount. However, till date MSEDCL has not given any reply to the query. Thus, MSPGCL continued to raise the LPS bills as per the methodology adopted for earlier LPS bills.
- 4.5.3.5 Subsequently, the LPS Rules came into force (on 22.02.2021 and 03.06.2022), which confirmed MSPGCL's approach to appropriation and clarified that the payments made to be appropriated first against LPS and thereafter the monthly charges starting from the longest overdue bill. Evidently, MSEDCL's belatedly proposed methodology whilst being contrary to its conduct, is also contrary to the LPS Rules.

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- 4.5.3.6 Thereafter, MSEBHCL initiated efforts to reach a consensus among MSEDCL, MSPGCL, and MSETCL regarding the issue of outstanding dues. During a meeting held at the office of Principal Secretary Energy on 02.08.2022, it was appraised that *“MERC vide its order dtd. 20.03.2018 in Case No.162 of 2016 has upheld the methodology followed by MSETCL regarding appropriation of payment towards principle 1st and balance against interest and the same is in line with MYT Regulations.”*
- 4.5.3.7 Basis this, Hon’ble Principal Secretary (Energy) directed that “MSPGCL shall follow the methodology for calculation of LPS as per the MSETCL. Accordingly, recalculate the LPS as on 03.06.2022 and reconcile with MSEDCL within 2 days to freeze the amount of liquidation.” In this regard, a copy of the Minutes of Meeting dated 02.08.2022 is annexed hereto and marked as Annexure-4.
- 4.5.3.8 However, subsequently, it was observed by MSPGCL that during the meeting chaired by Hon’ble Principal Secretary (Energy) on dated 02/08/2022, the understanding presented in the meeting regarding Hon’ble Commission’s Order dated 20.03.2018 in Case No. 162 of 2016 was fundamentally erroneous. It was sought to interpret the same as having upheld the methodology of appropriation of payment towards principal first and only then against interest. However, a perusal of the said Order would clarify that this Hon’ble Commission had not rendered any finding as to appropriation against principal first and then against interest. Instead, it was merely held that LPS is not to be included in next month’s bill, which is similar to MSPGCL’s approach to prevent compounding of interest. Furthermore, the said Order was on the basis of the Article 7.5.3 of the BPTA. In other words, this Hon’ble Commission’s Order dated 20.03.2018 in Case No. 162 of 2016 is inapplicable in the facts of the present matter discussed in the said meeting dated 02/08/2022. In this regard, the relevant part of the Order is extracted below:
- “23.3 Article 7.5.3 of the BPTA provides that the STU recover LPS from TSUs by including it in the next month’s bill, so that no LPS for that month would accumulate and be outstanding in subsequent months. While the BPTA in this Case is based on a standard document approved some years ago, prior to the MYT Regulations, 2011, it is a settled principle of law that Regulations are in the nature of subordinate legislation and prevail over contracts...*
- Thus, the provisions of the applicable MYT Regulations prevail over the provisions of the BPTA. The MYT Regulations, 2011 and 2015 do not mandate inclusion of LPS in the next month’s bill. Hence, to that extent, the treatment of LPS by the STU is in line with the applicable MYT Regulations.”*
- 4.5.3.9 A copy of this Hon’ble Commission’s Order dated 20.03.2018 in Case No. 162 of 2016 is annexed hereto and marked as Annexure-5.
- 4.5.3.10 In line with MSPGCL’s approach over the years, this Hon’ble Commission amended the MYT Regulations, 2019 to mandate appropriation of payment against LPS first and thereafter monthly charges starting from the longest overdue bill. It is noteworthy that at no point of time did this Hon’ble
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Commission stipulate anything contrary to such an approach. Regulation 37.5 in this regard is reproduced below:

“37.5 All payments by a Distribution Licensee to a Generating Company for power procured from it or by a user of a transmission system to a Transmission Licensee shall be first adjusted towards Delayed Payment Charge and thereafter, towards monthly charges, starting from the longest overdue bill.”

4.5.3.11 In view of the above, MSPGCL has continued with the earlier computations of LPS for FY 2009-10 till 03.06.2022 and had not adopted/ accepted MSEDCL's methodology. Petitioner herewith submits that the matter of methodology of payment apportionment along with outstanding liquidation, is under review. Without prejudice, it is submitted that the outcome of this review may impact the IoWC working.

4.5.4 Considerations requested for LPS billed for FY 2022-23 & FY 2023-24 in the truing-up computations for the period

4.5.4.1 It is submitted that, LPS bills for FY 2022-23 & FY 2023-24 are purely provisional in nature and will need revision once the related issues are resolved. While computing the LPS bills for FY 2022-23 & FY 2023-24, MSPGCL has considered the opening dues as per its LPS working for previous years & the Due date consideration is 30 days.

4.5.4.2 After implementation of the Electricity LPS Rules, 2022, the outstanding dues as on 03.06.2022 were to be paid in instalments. Resultantly, it is expected that in case of consensus between the two companies, the opening dues after implementation of the LPS Rules, 2022 will be zero. However, in case of MSPGCL, there is significant difference in the outstanding dues claimed by the two companies. As MSEDCL provisionally accepted the amount of Rs. 13,801 Crores for liquidation through instalments, the said amount was deducted from the opening dues as on 04.06.2022 and subsequent LPS billing is carried out with such opening due.

4.5.4.3 As the billing reconciliation as well as related methodology is pending, the opening dues are purely provisional. While this aspect is applicable for LPS bills raised since FY 2009-10 till now, as the truing-up for the period FY 2022-23 & FY 2023-24 is under consideration in the present petition, it is equally relevant in the present petition.

4.5.4.4 Once the reconciliation is finalised and the decision on methodology is finalised, the opening dues and the LPS for the period since FY 2009-10 will be revised, including the LPS bills for FY 2022-23 & FY 2023-24. The Petitioner craves leave to submit such detail as and when the issue is resolved along with any impact on previous True-up orders wherein accrued LPS was taken into cognizance for true-ups.

4.5.4.5 Moreover, in case of FY 2023-24, the provisional LPS billing is done considering a Due Date of 30 days. However, as detailed in the paragraphs above, MSPGCL has also requested for allowing IoWC by considering Receivable period of 75

days, if Due date of 60 days is to be considered as claimed by MSEDCL, for the period 08.06.2023 onwards.

- 4.5.4.6 Thus, based on the directions by Hon'ble Commission regarding 'Due date' to be considered for the period 08.06.2023 onwards as requested in the present petition, the LPS bill for FY 2023-24 will be further revised.

4.5.5 Reduction of IoWC by amount received towards delayed payment surcharge or LPS

- 4.5.5.1 As per provisions related to interest on working capital, while approving interest on working capital under True Up, the Hon'ble Commission has been reducing the working capital requirement computed as per Regulation 32.1 of MERC (MYT) Regulations 2019 by the amount towards delayed payment surcharge or late payment surcharge. In this regard, the Petitioner respectfully submits that interest on working capital accrual is due to funding requirements of day-to-day operations and it is a liability to external creditors and it covers a limited period namely till the due date of payment. Whereas the delayed or late payment surcharge/interest levied on delayed payments is receivables related to payments not made by the consumer on the due dates and for the delays beyond the due dates whose costs are being borne with internal resources. Thus, the nature of Interest on Working Capital and interest on delayed payments are distinct and therefore, it is incorrect to adjust the Interest on Working Capital with contribution of delay in receipt of payment when there was no contribution of the delay in receipt of payment to the actual interest on working capital.

- 4.5.5.2 It is most respectfully submitted that it is the entitlement of MSPGCL to receive the actual payment of electricity charges / tariff on or before the due date. The purpose of DPC/LPS is to reimburse MSPGCL for the delayed payment, or to put MSPGCL in the same position as it would have been if it had received the electricity charges / tariff on the due date and was entitled to receive that amount on or before the said stipulated date. It is in the nature of compensation for being deprived of the legitimate entitlement of MSPGCL for payment of the amount on or before the stipulated date. In this regard, the following Judgments of Hon'ble Supreme Court are noteworthy:

(a) Irrigation Department, Govt. of Orissa Vs. G.C. Roy – (1992) 1 SCC 508 – paras 43 and 44: -

"..... 43..... On a conspectus of aforementioned decisions, the following principles emerge: -

(i) A person deprived of the use of money to which he is legitimately entitled has a right to be compensated for the deprivation, call it by any name. It may be called interest, compensation or damages....."

(b) South Eastern Coalfields Ltd. Vs. State of M.P. & Ors. – (2003) 8 SCC 648: -

"..... 21. Interest is also payable in equity in certain circumstances. The rule in equity is that interest is payable even in the absence of any agreement or

custom to that effect though subject, of course, to a contrary agreement (see Chitty on Contracts, 1999 Edn., Vol. II, Para 38-248 at p. 712). Interest in equity has been held to be payable on the market rate even though the deed contains no mention of interest. Applicability of the rule to award interest in equity is attracted on the existence of a state of circumstances being established which justify the exercise of such equitable jurisdiction and such circumstances can be many.....

..... 24. We are, therefore, of the opinion that in the absence of there being a prohibition either in law or in the contract entered into between the two parties, there is no reason why the Coalfields should not be compensated by payment of interest for the period for which the consumers/purchasers did not pay the amount of enhanced royalty which is a constituent part of the price of the mineral for the period for which it remained unpaid. The justification for award of interest stands fortified by the weighty factor that the Coalfields themselves are obliged to pay interest to the State on such amount. It will be a travesty of justice to hold that though the Coalfields must pay the amount of interest to the State but the consumers/purchasers in whose hands the money was actually withheld be exonerated from liability to pay the interest.....”

(c) Consolidated Coffee Ltd. Vs. Agricultural ITO – (2001) 1 SCC 278 [para 9]: -

“..... a late payment surcharge/interest is necessarily compensatory in character.....”.

- 4.5.5.3 It is pertinent to note that Hon’ble Appellate Tribunal for Electricity too has held that LPS/ DPC cannot be treated as non-tariff income so as to deprive the entity of compensation of time value of money with respect to delayed payment of bills. [Judgment dated 30.07.2010 in Appeal No.153/2009 titled NDPL v. Delhi Electricity Regulatory Commission, Paras 43, 45-46, 51; Judgment dated 29.05.2019 in Appeal No. 250 of 2016 titled Adani Transmission (India) Limited v. Maharashtra Electricity Regulatory Commission, Paras 6.11-6.17; Judgment dated 24.07.2020 in Appeal No. 260 of 2016 titled Maharashtra Eastern Grid Power Transmission Company Limited v. Maharashtra Electricity Regulatory Commission, Paras 11(c)-(d)].
- 4.5.5.4 Hence, in view of the above Judgments, it is submitted that any DPC/ LPS ought not to be reduced from IoWC since DPC/LPS compensate for time value of money which is outside that taken care of by IoWC. For completion of record, it is submitted that the issue of reduction of DPC/LPS from IoWC is sub judice before Hon’ble Supreme Court in C.A. No. 1356-58 of 2017 and batch.
- 4.5.5.5 It is further noteworthy that the amount attributed to LPS or DPS are recorded on an accrual basis rather than on a recovered or received basis in the books of accounts. Hence, there is no case that LPS and DPS amount reduce the working

capital requirement of the business to this effect, as is being treated as per Regulation 32.6 of MERC (MYT) Regulations 2019. Therefore, even if DPS and LPS are associated with the working capital requirement, it is inappropriate to reduce the recorded amount of DPS or LPS as per the books of accounts.

- 4.5.5.6 In view of the above, it is evident that the presently carried out LPS billing for FY 2022-23 & FY 2023-24 is purely provisional and will definitely be revised. Therefore, MSPGCL requests that such purely provisional LPS bill amounts should not be considered for carrying out any adjustments against actual IoWC for FY 2022-23, FY 2023-24 for determining the sharing of gains/ (losses) and entitlement of IoWC.

4.6 Report issued by CEA regarding O&M expense of Koradi units 8-10 (3 x 660 MW) and its implication for FY 2020-21 to FY 2024-25

4.6.1 Background

- 4.6.1.1 The Petitioner's plants are regulated under the under the section 62 of the Electricity Act, 2003, subject to the prudence check by the Hon'ble Commission and the norms specified in the MYT Tariff Regulations, as amended from time to time. The Hon'ble Commission determines the tariff of individual generating stations of MSPGCL in accordance with MERC MYT Regulations. The Petitioner is entitled to recover its prudently incurred expenses as approved by the Hon'ble MERC.
- 4.6.1.2 After the COD of the super critical power plants of Koradi Thermal Power Station (KTPS), in 2017, the O&M expenses of the station got stabilised, however, the actual were higher compared to the expenses allowed as per the norms specified by the Hon'ble Commission. The Petitioner had invited suggestions and observations from various consultants and appointed them as technical consultant to evaluate the O&M practices at KTPS and to assess whether the Petitioner's practices are at par with supercritical plants of other generating stations across the country.
- 4.6.1.3 Petitioner was keen to explore and take an unbiased view on the O&M expenses and therefore was willing to undertake the evaluation of O&M expenses by a third-party. The Petitioner desired that the third party will undertake prudence check of the O&M expenses also undertake analysis of existing practices and benchmarking against the expenses incurred by similarly placed generating units and norms specified by the respective regulators. Accordingly, the Petitioner approached CEA to evaluate and analyse O&M expenses and practices of KTPS's supercritical units and also to recommend improvement of O&M practices.
- 4.6.1.4 Accordingly, the CEA has formulated a committee under the Chairmanship of Member (Thermal) CEA vide Order dated 24.01.2024. The terms of reference of the Committee were as follows:
- To analyze and evaluate the O&M expenses of KTPS of MSPGCL.

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- ii. To analyze the existing O&M practices followed at KTPS and to suggest MSPGCL the best O&M practices to be followed.

4.6.2 Finding of the Committee Report

4.6.2.1 The key findings of the Committee report are mentioned below:

- a. The Committee has observed that the Hon'ble Central Electricity Regulatory Commission (CERC), in formulating the Operations and Maintenance (O&M) expenses norms for various unit sizes, has emphasized its reliance on audited expenses over the past five years and has considered the ageing factor. The audited O&M expenses from the last five years offer a more accurate reflection of actual costs, as expenses in the initial 2-3 years tend to be unusually low due to the absence of ageing effects on the plant. Using the average O&M expenses from the last five years, escalated by 10% annually, provides a reliable base value for the upcoming control period. Additionally, it is recommended that an escalation factor be included to account for inflation in O&M expenses over the years within the control period.
- b. The Committee has noted that, in the absence of actual data for 600 MW units, including the capital cost benchmark, for framing the CERC Tariff Regulations 2014-19, the Hon'ble CERC utilized the representative figure of O&M expenses for 500 MW units across various central and state generating stations. This methodology was applied to establish the norms for 600 MW sets and above.
- c. The Committee acknowledges that O&M expenses for newer plants in their initial years do not reflect the impact of ageing. However, as deterioration sets in, these expenses increase. The ageing factor has a positive correlation with rising O&M expenses, and as such, there should be a differentiation in the O&M expenses norms for newer and older units.
- d. The Committee observed that the norms for the MERC MYT Regulations 2015 for 660 MW units were derived from approximately one and a half years of actual O&M expense data for Bhusawal Unit 4 (500 MW) and around two years of data for Khaperkheda Unit-5 (500 MW), with an economy of scale factor of 0.9. The Committee also noted that the Normative O&M Expenses as per MERC MYT Regulations 2015 were lower by Rs. 2.24 Lakh/MW during FY 2016-17 compared to the CERC 2014-19 tariff regulations.
- e. The Committee observed that under MERC (MYT) Regulations 2019, the base year O&M expense norm for FY 2020-21 (the first year of MYT regulations 2019) was significantly reduced to Rs. 14.99 Lakhs/MW compared to Rs. 16.24 Lakhs/MW for FY 2019-20 (the last year of MYT regulations 2015) for 600/660 MW sets, reflecting a reduction of approximately 7.7%. As previously mentioned, the lower O&M expenses in the initial 2-3 years of operation may have been a factor in the Hon'ble MERC's decision to reduce the base norm for the new control period.

4.6.3 Petitioner's submission

- 4.6.3.1 Based on the aforementioned Committee Report, it is important to note that the O&M norms set for Koradi Units 8-10 (3 x 660 MW) under the MERC (MYT) Regulations 2019 were on the lower side starting from FY 2020-21. Additionally, the Hon'ble MERC norms are significantly lower than those set by CERC. The Petitioner has highlighted these challenges in various Petitions. In light of the above recommendations and the findings of the CEA report, the Petitioner respectfully requests the Hon'ble Commission to align the O&M norms for the new 660 MW units with CERC norms for the control period from FY 2020-21 to FY 2024-25.
- 4.6.3.2 Accordingly, the Petitioner requests the Hon'ble Commission to calculate the sharing of gains and losses for Koradi Units 8-10 from FY 2022-23 onwards in the respective true-up chapters. Furthermore, considering that the true-up for FY 2021-22 has already been approved in the last MTR Order, the Petitioner requests the Hon'ble Commission to allow the incremental O&M expenses, reflecting the corrected O&M norms for FY 2020-21 and FY 2021-22, separately when issuing the Order in response to the present Petition.
- 4.6.3.3 Additionally, the O&M expense norms for the next control period, i.e., FY 2025-26 to FY 2029-30, may be considered based on the restated norms for FY 2024-25.

4.7 Detailed Study of Auxiliary Power Consumption and Availability Factor conducted by CPRI

4.7.1 Background

- 4.7.1.1 It is submitted that since 2015, the Petitioner has been informing this Hon'ble Commission that the operational norms (Plant Availability Factor, Auxiliary Power Consumption, Station Heat Rate, etc.) set by this Hon'ble Commission in the MYT Regulations 2015, MYT Regulations 2019 and MYT Regulations 2024 are unachievable for the following thermal units in light of the age of the machines, their individual characteristics, quality of primary fuel, operating conditions etc.
 - i. Khaperkheda TPS (Units 1 to 4),
 - ii. Paras TPS (Units 3 and 4),
 - iii. Parli TPS (Units 6 and 7),
 - iv. Koradi TPS (Unit 6), and
 - v. Chandrapur Super Thermal Power Station (CSTPS).
- 4.7.1.2 During the proceedings in Case No. 227 of 2022 (Mid Term Review Petition), in the context of the target Availability for Khaperkheda Units # 1 to 4, in the Mid Term Review petition (Case No. 227 of 2022 filed under the 4th Control period, the Petitioner had requested this Hon'ble Commission to appoint a technical agency (M/s. CPRI) to "suggest likely cost benefit analysis of incurring any capital expenditure to improve the performance". By the MTR Order dated 31.03.2023,

this Hon'ble Commission had granted liberty to the Petitioner to appoint a qualified technical agency to assess on its own and suggest improvements in the performance of its stations. Relevant extracts of this Hon'ble Commission's MTR Order 31.03.2023:

*"9.5.3 MSPGCL sought the relaxation in normative AEC of Khaperkheda. The norms of operation have been specified in the MYT Regulations, 2019 after due consultation process and therefore, the Commission does not find it prudent to revise the normative AEC for Khaperkheda as sought by MSPGCL. The Commission does not accept the request of MSPGCL to appoint a technical agency. **MSPGCL can take recourse to any measures, including appointment of a qualified technical agency on its own, required for improvement in the performance of the station, within the provisions of the applicable Regulations.**" (Emphasis added)*

4.7.2 CPRI Study

4.7.2.1 In light of the above liberty granted by this Hon'ble Commission, the Petitioner appointed Central Power Research Institute (CPRI), to conduct a detailed study of its power stations. In this regard, the following table sets out the details of the Petitioner's power station and the scope of the study undertaken by CPRI.

S. No.	Station	Units	Particulars of study	Study conducted in	Date of Report
1	Khaperkheda Thermal Power Station (KPTS)	1 - 4	Detailed study of Auxiliary Power Consumption (APC) and Availability Factor	January - 2024	20.06.2024
2	Chandrapur Super Thermal Power Station (CSTPS)	3 - 7	Detailed Auxiliary Power Consumption (APC) audit for reduction of APC	November & December -2023	27.05.2024
3	Parli Thermal Power Station (Parli TPS)	6 - 8	Detailed study of Auxiliary Power Consumption (APC)	February - 2024	10.06.2024
4	Paras Thermal Power Station (Paras TPS)	3- 4	Detailed study of Auxiliary Power Consumption (APC)	February - 2024	29.05.2024

4.7.2.2 CPRI has conducted the study and prepared its report based on the following scope of work:

- (i) Detailed analysis of auxiliary power consumption.
- (ii) Detailed analysis of availability factor of units.
- (iii) Conducting performance testing on each unit to ascertain its performance.

(iv) Suggesting measures to reduce auxiliary consumption & improve availability factor.

(v) Preparation of detailed study report based on the finding during the field study.

4.7.3 Results of the Study

4.7.3.1 The key findings of CPRI in pursuant to its detailed study have been categorized and summarized below, based on the respective generating stations,

S. No.	Station	Units	Study conducted on	Study Results	
1	Khaperkheda TPS	1	Improvement in Availability Factor	Maximum achievable AVF at 10.10% APC - 73.75%	Maximum achievable AVF for the station - 76.75%
		2		Maximum achievable AVF at 10.10% APC - 73.75%	
		3		Maximum achievable AVF at 9.80% APC - 79.75%	
		4		Maximum achievable AVF at 9.80% APC - 79.75%	
		1	Reduction in Auxiliary Power Consumption	Achievable APC at 80 % PLF - 10.02%	Maximum achievable APC for the station is 9.95%, at achievable AVF of 76.75% and 10.21% considering CT ratio issue
		2		Achievable APC at 80 % PLF - 9.24%	
		3		Achievable APC at 80 % PLF - 9.91%	
		4		Achievable APC at 80 % PLF - 9.56%	
2	CSTPS	3	Reduction in Auxiliary Power Consumption	Nominal Achievable APC at 80 % PLF - 9.63%	Achievable APC for the station at 80 % PLF - 9.34%
		4		Nominal Achievable APC at 80 % PLF - 9.42%	
		5		Nominal Achievable APC at 80 % PLF - 8.82%	
		6		Nominal Achievable APC at 80 % PLF - 8.67%	
		7		Nominal Achievable APC at 80 % PLF - 10.51%	
3	Parli TPS	6	Reduction in Auxiliary Power Consumption	Nominal Achievable APC at 85 % PLF - 10.82%	Achievable APC for the station at 85 % PLF - 10.82% for Units # 6,7 & 9.51% for Unit # 8
		7		Nominal Achievable APC at 85 % PLF - 10.82%	
		8		Nominal Achievable APC at 85 % PLF - 9.51%	
4	Paras TPS	3	Reduction in Auxiliary	Nominal Achievable APC at 85 % PLF - 10.42%	Achievable APC for the

S. No.	Station	Units	Study conducted on	Study Results	
		4	Power Consumption	Nominal Achievable APC at 85 % PLF - 10.00%	station at 85 % PLF - 10.21%

4.7.4 Draft MERC MYT Regulations, 2024

4.7.4.1 During the stakeholder consultation for Draft MYT Regulations 2024, the Petitioner had sought relaxations in plant performance parameters for Nashik (Availability), Bhusawal (Availability), Chandrapur Units 3-7 (Availability and Auxiliary consumption), Khaperkheda Units 1-4 (Availability), Paras Units 3-4 (Auxiliary Consumption) and Parli Units 6-7 (Auxiliary Consumption). In support of its request, the Petitioner had also submitted the aforementioned CPRI reports. A copy of the CPRI Reports is annexed hereto and marked as Annexure – 6.

4.7.4.2 However, this Hon'ble Commission only partially relaxed the Auxiliary Consumption norms for Chandrapur Units 3 to 7, by revising the norm to 8.6% instead of 9.34%. On a perusal of Para's 5.7.3 and 5.9.3 of the SOR to the MYT Regulations 2024 it is evident that this Hon'ble Commission has not allowed any relaxations in norms as per the CPRI Report. It is submitted that this Hon'ble Commission has made certain observations while disallowing the relaxation in norms sought by the Petitioner.

4.7.4.3 As regards the issue of relaxation of Availability norms for Bhusawal TPS, Nashik TPS and Khaperkheda Units 1 – 4, in the SOR this Hon'ble Commission has opined that:

"MSPGCL has submitted the CPRI reports for some of the TPS and requested for relaxation in the performance norms. However, based on the data received from MSPGCL, it is noted that, actual availability of Bhusawal TPS for FY 2019-20 and FY 2020-21 is more than 90% and for Nashik TPS the actual availability for FY 2020-21 is more than 95% and in FY 2021-22 it is 84.44%.

For Khaparkheda Unit 1 to 4, CPRI Report, recommends Availability as 73.75% for Unit 1 and 2, while 79.75% for Unit 3 and 4. But Khaparkheda Unit 1 to 4, actual availability for FY 2022-23 and FY 2023-24(H1) is more than 92%. It is observed that actual performance has improved in past years. CPRI report provides unit wise performance parameters whereas it is observed that, Khaparkheda Unit 1 to 4 combinedly meeting the operational norms requirement. Further, variation in actual and normative performance shall be treated under sharing of gains and losses mechanism. Hence, the Commission is not inclined to provide any relaxation for these stations and norms proposed in the draft MERC MYT Regulations 2024 are retained in the final Regulations."

4.7.4.4 In this regard, it is submitted that:

- i. With respect to Nashik and Bhusawal Unit 3, this Hon'ble Commission has relied upon the data during the Covid period when the plants were under reserve shutdown. As a result, they showed higher Availability due to lower demand.
- ii. With respect to Khaperkheda Units 1 to 4, while this Hon'ble Commission has mentioned that actual availability for FY 2022- 23 and FY 2023-24(H1) is more than 92%. However, as per SLDC's certificates for FY 2022-23 and FY 2023-24 the Availability of Khaperkheda Units 1 to 4 is 61.92% and 62.80% respectively.
- iii. The actual Availability factor for Bhusawal Unit # 3, Nashik and Khaperkheda Units # 1 to 4 for FY 2022-23 & FY 2023-24 as certified by SLDC are as tabulated below:

Station	FY 2022-23	FY 2023-24
Bhusawal Unit # 3	56.8%	62.08%
Khaperkheda Units # 1 to 4	61.92%	62.80%
Nashik	65.85%	81.2%

The SLDC Certificates are attached hereto and marked as Annexure – 13 & 14.

- iv. It is further submitted that the availability of the Nashik unit over 80%, as shown in the table above, due to the implementation of the Case-4 methodology under the Ministry of Power's coal flexibilization policy. This arrangement, however, is purely temporary and, therefore, should not be considered for determining normative parameters with long-term implications.

- 4.7.4.5 As regards the issue of Auxiliary Consumption for Chandrapur Units 3 – 7, in the SOR this Hon'ble Commission has held as under:

"Further the CPRI has recommended norms for Chandrapur Unit (3 to 7) in the range of 8.67% to 10.51%. The Commission notes that, CPRI has recommended auxiliary consumption norm of 8.67% to Chandrapur TPS Unit 6. If all the units of Chandrapur (3 to 7) are having COD in similar period and vintage life of these units is similar, operational performance of all these units is expected in the similar range. If Unit 6 can achieve the auxiliary consumption norm of 8.67%, then other Units are also expected to perform similarly. Accordingly, the Commission has considered Aux. consumption of 8.67% as proposed by CPRI for Chandrapur Unit 6 and revised the auxiliary consumption norm for Chandrapur Unit (3 to 7) to 8.67% from existing 7.8%."

- 4.7.4.6 As is evident from the above, this Hon'ble Commission has fixed the Auxiliary norms for all units of Chandrapur based on the Auxiliary Consumption of Unit 6 on an assumption that the operational performance of all units are similar to

Unit 6 since their COD and vintage life is similar to Unit 6. It is submitted that the approach taken by the Hon'ble Commission is incorrect for the following reasons:

- a) Unit 6 is of 500 MW and is 32 years old. However, Units 3 and 4 are of 210 MW capacity each and are 40 years old. Evidently, Units 3 and 4 are not similar to Unit 6 either in capacity or vintage. It is, therefore, not prudent to apply the norms for Unit 6 to Units 3 and 4 or the other units of Chandrapur
- b) Furthermore, CPRI Report on Auxiliary Power Consumption (APC) Audit of Chandrapur clearly states that the achievable APC for each Unit of Chandrapur, after resorting to saving measures, is as under:

Unit	#3	#4	#5	#6	#7
Achievable APC @ 80% PLF	9.63	9.42	8.82	8.67	10.51

As is evident from the table above, as per CPRI the achievable APC for Units 3, 4, 5 and 7 is clearly more than 8.67% that has been allowed by this Hon'ble Commission for all the units.

4.7.4.7 As regards Paras and Parli units, the norms fixed by this Hon'ble Commission for Auxiliary Power Consumption are not only very stringent in comparison to the actual achieved in the past 10 years, but are also stringent in comparison to the achievable parameters discovered by CPRI in its study. The technical study conducted by CPRI as well as past performance of the plant indicate that achievable APC after possible savings at 85% PLF is around 10.21% for Paras and 10.82% for Parli TPS.

4.7.4.8 It is submitted that this Hon'ble Commission ought to consider the actual data and reconsider its findings in the SOR to the MYT Regulations 2024. The norms specified by this Hon'ble Commission are not achievable considering the design specifications, vintage and past performance. This is further confirmed by CPRI Reports which clearly indicate that the operational norms fixed by this Hon'ble Commission are not aligned with the actual and achievable performance the Petitioners generating stations.

4.7.5 Petitioner's Submission

4.7.5.1 It is clear from the findings of the CPRI Reports that the current Auxiliary consumption norms and the Availability norms under the MERC MYT Regulations 2019 for the Petitioner's power stations and units mentioned in Para 4.7.1.1 above, are significantly lower than the actual achievable performance parameters. Despite multiple requests in the past, this Hon'ble Commission did not deem it fit to accept the Petitioner's contentions that performance Auxiliary consumption and Availability norms ought to be revised based on the actual achieved by the Petitioner's generating stations. Now, CPRI's Report supports the Petitioner's contentions that the norms specified by

this Hon'ble Commission in the MYT Tariff Regulations 2019 and 2024 are unachievable.

- 4.7.5.2 The Hon'ble Appellate Tribunal for Electricity ("Hon'ble APTEL") by its Judgment dated 10.04.2008 in Appeal Nos. 86 & 87 of 2007 titled Maharashtra State Power Generation Company Ltd. v. Maharashtra Electricity Regulatory Commission has held that if the operational norms specified by this Hon'ble Commission are not unachievable then it will not be in anyone's interest – both generator and consumers would suffer. Accordingly, Hon'ble APTEL had directed the appointment of an independent agency to conduct a detailed study and directed the Hon'ble Commission to act based on the findings of such a study. The relevant extracts of the of the said judgment are set out below:

"31. We are of the opinion that if the SHR allowed by the Commission is not achievable, then the same would not be in anybody's interest; entity would suffer by not recovering its reasonable cost of supply of the electricity and the consumers would not get the right signal about the pricing of the product they would be using. It is as much essential for the consumers to know the right price of the product they are using, as much as it is for the entity to recover its cost of operations. Unless the consumer knows the true price of the product, he will not be able to take an informed decision about the quantum of his consumption, particularly the industrial and commercial consumers who recover such costs from their consumers. Determining right price is also essential to send signals to the prospective developers/investors in the sector enabling them to take decision about the investment potential in the sector.

32. Under the circumstance, we feel that the Commission either on its own or through the Appellant engage appropriate independent agency(ies), who can carry out a study in a time bound (preferably within three months) manner to reasonably assess the achievable SHR of the plants owned by the Appellant. Such agency may also be asked to suggest measures to improve the SHRs over a period of time.

33. Based on the above, the Commission is directed to determine the SHRs in respect of plants owned by the Appellant. Till such time, the Appellant may continue with the pre-existing tariff subject to truing up with the revised SHRs when available." **(Emphasis Added)**

- 4.7.5.3 It is submitted that in terms of Clause 5.3 of the Tariff Policy, operating norms must be,
- (i) efficient,
 - (ii) relatable to past performance, and
 - (iii) capable of achievement.

4.7.5.4 In terms of Section 61 of the Electricity Act, this Hon'ble Commission is to be guided by the stipulations of the Tariff Policy. Further, this Hon'ble Commission has to ensure recovery of cost of electricity in a reasonable manner while protecting consumer interest. The above position has also been fortified by the Hon'ble Supreme Court in Reliance Infrastructure Limited v. State of Maharashtra & Ors. [(2019) 3 SCC 352] (paras 31, 36 and 37), wherein the Hon'ble Supreme Court has reiterated that the State Commissions must keep in mind the salutary principles under Section 61 and the Tariff Policy while determining operating norms. Amongst others, the norms ought to be set basis the past performance of the generating company and the targets must be capable of achieving. In other words, any norm which is not relatable with past performance or cannot be achieved must not be set by this Hon'ble Commission for future assessment.

4.7.5.5 In Haryana Power Generation Corporation Ltd v. Haryana Electricity Regulatory Commission 2009 SCC OnLine 111, the Hon'ble APTEL while dealing with unachievable SHR norms specified by the Haryana Electricity Regulatory Commission has held as under:

"16. The SHR is one of the most important factors for the purpose of determination of cost of generation from any thermal generating station and in turn for determination of the generation tariff. A higher SHR generally indicates lower efficiency while a lower SHR generally indicates better efficiency of the operation of the thermal generating station. The SHR depends upon many factors; critical among them are the design of the machines, age of the power plant, operating practices and technology adopted. We are of the opinion that determination of applicable SHR is an area which requires proper study by an expert body. We observe that the State Commission has based its decision upon the findings of the CEA. At page 12 of the order dated 08.05.2007, the State commission has stated that 'the Commission is conscious of the fact that much needed power generation in the state cannot be sustained if the generation company is not financially viable and operationally sound. Thus, the generation business ought to conform to technical and commercial norms and be attractive enough for new investments, both domestic as well as foreign, in order to bridge the demand-supply gap requiring huge capital outlays'. The State Commission has to balance the interests of the consumers and the generators. If the targets given to the generating company are not achievable, no purpose would be served by setting such targets because such approach would adversely impact the financial position of the generator, which in turn would impact the investment in the electricity industry in the State. On the other hand, if the targets given are too liberal, the cost of power to end user would be higher, which would make the local industry and business uncompetitive. The Tariff Policy also lays emphasis on laying down standard which are

achievable and encourage efficient operations. It is essential that the norms laid are not too liberal as to encourage inefficient operations, but at the same time are at least near to those achievable.

17. Therefore, under the circumstances, it is essential for the State Commission to arrange for a station-wise study to determine the SHR of the power plants of the appellant. The study may be conducted in a time bound manner. If the study indicates substantial variation (say more than 2-3%) than the benchmarks adopted by the State Commission, after adjusting for reasonable deterioration due to elapse of time, may be re-determined by the State Commission.”

- 4.7.5.6 It is evident from the aforesaid Judgments of the Hon’ble APTEL that if the operational norms set by the State Commission, then the same ought to be re-determined after conducting a thorough study. In the present case, CPRI’s Report makes it clear that the Auxiliary and Availability norms under the MYT Regulations 2019 and the MYT Regulations 2024 are unachievable for the Petitioner’s generating stations mentioned in Para 4.7.1.1. above – the achievable norms are significantly higher than the norms fixed by Hon’ble Commission, indicating that the norm is unachievable. Hence these norms need to re-determined to ensure recovery of cost of generation for the Petitioner. Considering the CPRI Reports as well as historical performance data & other operational constraints, the Petitioner requests for consideration of the relaxations in performance parameters as tabulated below,

Plant Performance Parameter	Station / Unit	Relaxed Norm requested	Rationale
Plant Availability Factor	Khaperkheda Units # 1 to 4	75% (for FY 2025-26 onwards)	CPRI Report as well as historical performance & operational constraints
	Nashik	80% (FY 2025-26 onwards)	Historical performance & operational constraints. MoP’s coal flexibilisation under Case 4 is temporary arrangement & hence effect may not be considered.
	Bhusawal Unit # 3	80% (FY 2025-26 onwards)	Historical performance & operational constraints
Auxiliary Consumption %	Chandrapur Units # 3 to 7	9.34% (for FY 2022-23 onwards)	CPRI Report as well as historical performance & operational constraints
	Paras	10.25% (for FY 2022-23 onwards)	CPRI Report as well as historical performance & operational constraints
	Parli Units # 6,7	10.25% (for FY 2022-23 onwards)	CPRI Report as well as historical performance & operational constraints

Plant Performance Parameter	Station / Unit	Relaxed Norm requested	Rationale
	Parli Unit # 8	9.14% (for FY 2022-23 onwards)	CPRI Report as well as historical performance & operational constraints
	Khaperkheda Units # 1 to 4	10.21% (for FY 2022-23 onwards)	CPRI Report as well as historical performance & operational constraints

4.7.5.7 Thus, in view of the above it is submitted and requested that this Hon'ble Commission may exercise its powers under Regulations 105 (Power to Relax) of the MYT Regulations 2019 to revise the Auxiliary consumption norms and Availability factor to allow the recovery as per actual Auxiliary consumption and AVF achieved by the Petitioner generating stations mentioned in Para 4.7.1.1. Further, this Hon'ble Commission may kindly exercise its powers under Regulations 149 (Power to Relax) under the MYT Regulations 2024 to revise the Auxiliary consumption norms and Availability factor for the future control period, i.e., from FY 2025-26 to FY 2029-30.

5 Compliance of directives issued in MTR Order (Case No. 227 of 2022)

5.1 Directives in MTR Order dated 31.03.2023, in Case No.227 of 2022:

- 5.1.1.1 **Grade slippage (Para 9.9.14)** - The Commission directs MSPGCL to take all the necessary and adequate steps to minimize the grade slippage and submit the efforts taken by MSPGCL in the true-up of respective years for considering the relaxed norms approved in this Order on its merit (Para 12.4.10 of MTR Order):

Compliance from MSPGCL:

The Petitioner respectfully submits that, in consideration of the suggestions provided by Vidarbha Industries Association (VIA), various initiatives have been undertaken to enhance the quality of coal and mitigate GCV variation. To minimize grade slippage and improve coal quality, the Petitioner has implemented the following measures:

- a) The Petitioner has established a Coal Assurance Team (CAT), comprising engineers, chemists, and technicians from MSPGCL. These personnel are deputed to various sidings of WCL, SECL, MCL, and SCCL to monitor and oversee coal quality, quantity, and the activities of Third-Party Sampling Agencies (TPSA).
- b) Experienced retired employees from MSPGCL have also been deployed at the loading sites to monitor, witness sampling, and supervise coal preparation.
- c) Since a significant portion of coal is dispatched from WCL sidings, a Supervision, Monitoring, and Coordination (SMC) agency has been appointed. This agency is responsible for overseeing TPSA activities, monitoring raw coal dispatches to MSPGCL's TPS, and ensuring the quality and quantity of coal at the loading end, round the clock.
- d) The Hon'ble Commission, in MYT Order, has emphasized the importance of controlling the GCV difference between the loading and unloading points. This directive has been conveyed to both TPSA and SMC agencies, and regular reviews are conducted to ensure the continuous improvement of coal quality.
- e) The Petitioner has also set specific targets for Third Party Sampling Agencies to further enhance the coal quality. The targets are set for the agencies are indicated below,
 - Loading end Eq. GCV and unloading end ARB GCV, shall not exceed the limit of 650 Kcal/Kg. specified by MERC
 - WCL loading end GCV (EQ.) and unloading end GCV (EQ.) shall not exceed the limit of 300 Kcal/Kg.
 - Many times communicated to Coal companies vide letters and requested for dispatch of coal quality as per declared grade & FSA.

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- FSA, Quality & Sampling related issues were taken at various meetings, through letters to coal companies, CIL, MoC, MoP.

The Petitioner further submits that the variation in GCV between the loading and unloading points can be attributed to several sampling methodology issues. These include: topping up wagons with higher-quality coal during loading; limited sampling, with only 10% of wagons in a rake being sampled as per the FSA, compared to the 25% sampling required by IS-436; and manual sampling from wagons, which only captures coal from the top portion. Additionally, there are challenges in road-based coal supply, where randomness is applied only to the first lot of eight trucks, after which samples are taken at fixed intervals for the rest of the day. Similarly, for conveyor belt sampling, randomness is ensured only during the first 45 minutes, after which samples are collected at regular time intervals, resulting in a lack of true randomness. To address these issues, MSPGCL has suggested:

- a) To carry out sampling by deploying Auger machine instead of manual sampling,
- b) collection of sample from 25 % wagons as per BIS to collect the maximum samples to represent the total population,
- c) Collection of road mode sample randomly from each lot of 8 trucks, Collection of belt sample randomly at any time from lot of 45 minutes every time.

MSPGCL has actively pursued the review of coal sampling methodologies with the Ministry of Coal, the Hon'ble Secretary of Coal, and the Secretary of Coal India Limited (CIL) through various meetings and forums held in Delhi. Additionally, letters have been sent to the Hon'ble Minister of Coal, Government of India, by the Hon'ble Deputy Chief Minister of Maharashtra, as well as to the Secretary of Coal, Ministry of Coal, by the Hon'ble Chairman and Managing Director of MSPGCL. Copies of these letters are enclosed as Annexure - 6 (a)

In addition to the above, MSPGCL has implemented several measures to monitor the coal supplied to its facilities at the loading end, as detailed below:

- Since 2016, coal sample collection at the loading end has been carried out by a third-party agency, M/s Central Institute of Mining and Fuel Research (CSIR-CIMFR), jointly appointed by Coal India and MSPGCL. However, despite this arrangement, the GCV difference between the loading and unloading ends exceeded the margin permitted by the Hon'ble Commission. In November 2023, CSIR-CIMFR ceased its

operations, and the sampling and analysis work was reassigned to a third-party agency empanelled by Power Finance Corporation.

These efforts have resulted in improvements in minimizing grade deviation at the loading end. However, improvement in grade slippage is not much evident and the GCV difference between the loading and unloading ends continues to exceed the gap permitted by the Hon'ble Commission. Though the GCV gap is higher than the allowed margin, the average GCV gap for raw coal for FY 2022-23 was ~897 kcal/kg, which was reduced to ~839 kcal/kg in FY 2023-24 on account of the various measures elaborated above.

5.1.1.2 **Additional capitalisation of Bhusawal Units 4&5 for FY 2022-23 (Para 3.1.9) -**

The Commission directs MSPGCL to include the said amount in its claim of final true-up for FY 2022-23 along with all the supporting documents for prudence check by the Commission (Para 12.4.1 of MTR Order):

Compliance from MSPGCL:

The Petitioner respectfully submits that the claims have been duly raised and are comprehensively addressed in paragraph 6.1.2 of this Petition.

5.1.1.3 **Reimbursement of expenses from GoM (Para 3.11.8) -** The Commission directs MSPGCL to pass through the expenses reimbursed by GoM to MSEDCL and submit the status of the same in the MYT Petition for the next Control Period. (Para 12.4.2 of MTR Order):

Compliance from MSPGCL:

The Petitioner respectfully submits that, as per the Government Resolutions dated 14.06.2017 and 17.03.2018 (attached as Annexure - 7), no reimbursement of expenses is provided except for those related to the evacuation facility, if any, which are to be reimbursed by MEDA through the Green Energy Fund. At present, there are no claims for such expenses, and consequently, no reimbursement has been received by MSPGCL from MEDA or the Government of Maharashtra against any expenditures incurred by MSPGCL under the *Mukhyamantri Saur Krushi Vahini Yojana*.

5.1.1.4 **Generation loss due to O&M factors (Para 4.3.8, Para 5.3.7) -** The Commission directs MSPGCL to submit a plan within three months to ensure the improvement in its O&M practices for reduction in generation loss due to O&M factors (Para 12.4.5 of MTR Order):

Compliance from MSPGCL:

The Petitioner respectfully submits that it has consistently maintained a practice of closely monitoring issues that affect plant availability and loadability across various thermal units. Recognizing that optimal O&M practices are fundamental to ensuring sustained and efficient operations, the

Petitioner conducts daily, weekly, and monthly monitoring and assessments of O&M activities at both the station and head office levels. This is facilitated through the use of various tools such as MIS reports, online and offline meetings, inter-station interactions, and consultations with other generating companies.

The petitioner submits that in compliance to the directives in the MTR order, it had prepared the action plan for reduction in generation loss by improvement in O & M practices and had implemented the same since FY 2023-24. The implemented action plan and observations regarding improvement in generation in post-implementation period are being submitted herewith.

The Petitioner requests to condone the delay in submission of the action plan, but assures that it is taking serious efforts with emphasis on improvement in O & M practices and hence generation output on continual and sustainable basis.

The Petitioner further submits that in FY 2023-24, there has been a notable improvement in generation performance and key plant parameters as compared to the previous year. The enhancement in O&M practices has been a significant contributing factor to this improvement. A detailed comparison of plant performance for FY 2022-23 and FY 2023-24 is provided below for the Hon'ble Commission's kind consideration.

Table 12: Annual Net Generation from FY 2022 to FY 2025 (in MUs)

Station	FY 21-22	FY 22-23	FY 23-24	FY 24-25 (Apr to Sept)
Bhusawal (Unit 3)	458.42	611.32	879.62	435.41
Bhusawal (Unit 4-5)	5,259.22	5,730.25	6,112.35	2,692.84
Khaparkheda (Unit 1- 4)	3,274.64	3,848.77	4,162.33	2,291.21
Khaparkheda U # 5	3,249.87	3,237.41	3,362.68	1,711.53
Nashik (Unit 3-5)	1,785.42	2,209.27	2,315.12	1,231.80
Chandrapur (Unit 3-7)	7,763.90	7,480.80	8,089.64	4,482.77
Chandrapur (Unit- 8 & 9)	5,986.89	6,300.85	6,804.82	2,647.75
Paras (Unit 3- 4)	2,327.24	2,732.70	3,219.24	1,254.39
Parali (Unit 6-7)	1,596.78	2,471.09	2,486.69	1,061.37
Parali (Unit 8)	1,003.94	979.08	1,137.77	570.35
Koradi (Unit 6)	784.15	1,170.49	1,229.21	551.82
Koradi (Unit- 8, 9 & 10)	10,031.02	10,292.70	10,951.93	5,637.13
GTPS URAN (Unit 5 -10)	2,014.06	1,448.95	1,717.33	1,226.44
Total thermal	45,535.55	48,513.67	52,468.72	25,794.82

Table 13: Net Generation from April to September - FY 2022 to FY 2025 (in MUs)

Station	FY 21-22	FY 22-23	FY 23-24	FY 24-25
Bhusawal (Unit 3)	151.52	323.24	473.22	435.41
Bhusawal (Unit 4-5)	2,696.12	2,586.33	3,170.83	2,692.84
Khaparkheda (Unit 1- 4)	1,531.77	1,855.27	1,971.70	2,291.21
Khaparkheda Unit 5	1,620.94	1,631.37	1,599.57	1,711.53
Nashik (Unit 3-5)	827.89	1,191.91	1,214.86	1,231.80
Chandrapur (Unit 3-7)	3,655.08	3,830.09	3,690.67	4,482.77
Chandrapur (Unit- 8 & 9)	2,814.24	3,125.46	3,424.86	2,647.75
Paras (Unit 3- 4)	1,075.03	1,351.41	1,461.74	1,254.39
Parali (Unit 6-7)	594.20	1,312.99	1,213.64	1,061.37
Parali (Unit 8)	402.29	480.24	516.01	570.35
Koradi (Unit 6)	226.26	479.31	593.98	551.82
Koradi (Unit-8,9 & 10)	4,252.67	5,513.26	4,700.28	5,637.13
GTPS URAN	1,074.29	757.02	592.09	1,226.44
Total thermal	20,922.30	24,437.89	24,623.43	25,794.82

The above table shows that there is significant improvement in the actual net sent out, (even when there is no any capacity addition during the period), indicating serious efforts taken for implementation of activities for improvement in O & M practices.

The Petitioner respectfully submits that the details of the specific actions and initiatives undertaken for the improvement of O&M activities at various power stations are provided in the Annexure – 8.

- 5.1.1.5 **Operation of Uran Power Station in Combined Cycle (Para 4.7.3)** - The Commission directs MSPGCL to optimally utilise the gas available and operate the Uran Power Station in combined cycle mode to the maximum extent possible. The Commission also directs MSPGCL to submit the complete details and justification in case Uran Power Station is operated in open cycle mode for a certain period of the year at the time of true-up. (Para 12.4.4 of MTR Order):

Compliance from MSPGCL:

The Petitioner submits that, at Gas Turbine Power Station, Uran 4 x 108 MW Gas Turbine Units have been erected and commissioned in year 1985-86 by M/s Siemens AG Germany. Subsequently two Waste Heat Recovery units A0 & B0 (steam turbines) each of 120 MW capacity utilizing the exhaust flue gas of GT units were erected and commissioned by M/s Siemens AG Germany in the year 1994-95. The plant configuration is such that Siemens V 94.2 GT Unit nos. 5 & 6 along with WHRP A0 unit forms A0 block, whereas Siemens V 94.2 GT Unit nos. 7 & 8 along with WHRP B0 unit forms B0 block

Stage- II	Unit No.	Installed Capacity	Waste Heat recovery	Installed Capacity	Total capacity
Gas Turbine	5	108 MW	A0 Steam Turbine + A1 & A2 Boilers	102 MW	672 MW
Gas Turbine	6	108 MW			

Stage- II	Unit No.	Installed Capacity	Waste Heat recovery	Installed Capacity	Total capacity
Gas Turbine	7	108 MW	B0 Steam Turbine + B1 & B2 Boilers	102 MW	
Gas Turbine	8	108 MW			

On date 7th Sept 2022, GT6 and A0 was running normal. GT-6 was running on 90 MW and A0 was running on 36 MW, being only one GT and A0 Steam turbine was in service in waste heat recovery mode till 16:30 Hrs. At 16:30 Hrs., A0 unit tripped with heavy abnormal sound and vibration. Steam turbine HP Front Bearing vibrations and Generator Exciter end bearing vibrations signal got bad due to heavy vibrations. Turbine tripped due to turbine high vibration protection. Generator trips on reverse power protection after 0.5 Sec. During this event, turbine exhaust thermocouple damaged and LP exhaust steam protection operated. Thus, HP and LP bypass protection operate. A2 Boiler tripped on HP/LP Bypass protection and bypass damper got open.

During detail inspection after Turbine come to rest, preliminary, it is observed that, A0 Generator slip ring rocker found damage and Generator bearing cover found dislocated. Heavy oil leakages are observed from Bearing assembly.

During detail inspection after opening of Steam Turbine, Failure of LP blades and gland sealing is observed, probably due to heavy unbalance force created due to instantaneous blade failure. Due to steam turbine failure, combined cycle operation of block had stopped. Considering this, it was not desirable to operate GT Unit-5 in open cycle mode both economically and ecologically, considering high heat rate and wastage of energy of flue gas in environment. Meanwhile, spares required for restoration work of Steam Turbine unit A0 were not available, and it was going to take more time to restore. So, it was decided to strengthen CCPP B0 block (consisting of GT-7, GT-8 and Steam Turbine B0). Thus, to restore GT Unit-7 in less time, it was decided to shift GT Unit-5 rotor along with its Turbine stator carrier in GT Unit-7 bed. Thus, in April 2023 GT Unit-7 was restored with GT Unit-5 rotor and its Turbine stator carrier. Since then B0 block operation is normal in waste heat recovery mode.

At present, A0 steam turbine along with A1 & A2 boilers are not available for generation due to failure of A0 steam turbine in 2022. Thus, GT-5 & GT-6 is available in Open Cycle. The B0 block operation is normal in waste heat recovery mode. Thus, the complete GT-7 + GT-8 +B0 are available in Combined cycle mode.

Due to non-availability of A0 Waste Heat Recovery block, the GT-5 & GT-6 is available only in Open cycle. Hence, these are scheduled as per requirement of MSEDCL during high demand period or in case of requirement from SLDC for grid balancing support.

The Petitioner submits that the issue regarding non-availability of adequate gas supply at Uran GTPS is not resolved yet as can be observed from the gas receipt data for last 10 years given under the following tabulation.

Financial Year	Daily Normative Qty.	Average gas receipt (MMSCMD)		
		APM gas	Non - APM gas	Total gas
FY 2014-15	2.31	1.55	0.73	2.28
FY 2015-16	1.96	1.53	0.44	1.97
FY 2016-17	2.24	1.80	0.40	2.20
FY 2017-18	2.21	2.15	0.0021	2.152
FY 2018-19	1.79	1.75	0.0	1.75
FY 2019-20	1.86	1.77	0.0	1.77
FY 2020-21	1.404	1.34	0.0	1.34
FY 2021-22	1.543	1.51	0.0	1.51
FY 2022-23	1.164	1.81	0.0	1.81
FY 2023-24	1.31	1.09	0.0	1.09
FY 2024-25 (Apr-24 to Sep-24)	2.351	1.70	0.0	1.70

The gas availability has always remained much below the gas quantity ~ 3.6 MMSCMD required to operate the complete installed capacity. Even when the WHR units are not available, the units can utilise the available gas in open cycle to maximise the utilisation but it affects the heat efficiency. Hence, the Open-cycle operations are done only when it is unavoidable. Following tabulation shows the pattern of gas utilisation & units' operation in open cycle & combined cycle. It can be seen that there has been significant reduction in open cycle operation period from FY 2022-23 to FY 2023-24, as it has been tried to minimise the open cycle operations.

Table 14: Gross Generation from Uran for FY 2023 & FY 2024

Year	Unit	Open cycle	Combined cycle	Total
FY 2022-23	Mus	322.30	1,168.91	1,491.22
	% of total	21.61%	78.39%	100.00%
FY 2023-24	Mus	66.51	1,702.52	1,769.03
	% of total	3.76%	96.24%	100.00%
FY 2024-25 (H1)	Mus	74.59	1,186.36	1,260.95
	% of total	5.92%	94.08%	100.00%

The above table shows increased Open cycle operations in FY 2022-23, due to major A0 steam turbine failure. Further, after restoration of A0 steam turbine, the Open cycle operation has been reduced to 3.76% in FY 2023-24.

To ensure availability of A0 block in combined cycle mode, MSPGCL has undertaken A0 restoration work under emergency Capex scheme, wherein following works are being carried out,

- Restoration of A0 Steam Turbine after catastrophic Failure – Condition assessment of damage components, spares development by reverse engineering, manufacturing, assembly. Erection and commissioning to obtain reliable performance.
- Restoration of GT-5 Gas Turbine –To attend the generic Issue of Gas turbine with rectification of hot path components, Intake Air Filter System and Compressor.
- Restoration of A1 and A2 Boiler – Replacement of LP Evaporator Headers. Flue Gas Ducting with Insulation, Dampers and Damper Control System

Following is the current status of A0 restoration activity:

- Orders are placed on M/s BHEL Hyderabad for complete repair of Steam Turbine A-0 and on BHEL PSWR for field services of dismantling the damaged components and Re-assembly of the same after repair work.
- The Turbine components after repairs / refurbishment were expected to reach Uran site up to October-2024 end.
- The field services restoration time is 1 month after receipt of all the material from M/s BHEL Hyderabad. As such, A-0 Block will be available on combined cycle mode up to 30.11.2024.
- However, the repair and restoration work of A-0 Steam Turbine being critical and challenging work, the unforeseen surprises may result in further delay in the work of restoration.

5.1.1.6 **Coal beneficiation (Para 8.5.6)** - The Commission directs MSPGCL to carry out the proper cost benefit analysis of coal beneficiation for each year from FY 2022-23 onwards and submit the same in the true- up of the respective years. MSPGCL should try to ensure that the effective landed price of washed coal at thermal station in terms of Rs. /kCal is lower than the landed price of normal mined coal at thermal station in terms of Rs. /kCal (Para 12.4.8 of MTR Order):

Compliance from MSPGCL:

The Petitioner respectfully submits that it has entered into contractual agreements with M/s MSMC for the lifting of raw coal from WCL, MCL, and SECL mine areas and the subsequent supply of beneficiated/washed coal to various power stations of MSPGCL. In compliance with regulatory requirements and in the interest of optimizing operational efficiency, the Petitioner has conducted a detailed cost-benefit analysis of coal beneficiation for each year, from FY 2022-23 to FY 2024-25. The results of this cost-benefit analysis are provided in Annexure – 9.

- 5.1.1.7 **Co-firing of biomass pellets** - The Commission directs MSPGCL to comply with the notification of GoI regarding the co-firing of biomass pellets in its coal based power plants (Para 12.4.9 of MTR Order):

Compliance from MSPGCL:

The Petitioner respectfully submits that multiple tenders have been floated for various power stations, which are currently at different stages of the procurement process. The status of the power stations are as follows,

- a) **Bhusawal TPS and Koradi TPS (210 MW):** Tenders were floated; however, they could not be finalized due to inadequate responses and higher quoted rates. Revised tenders are presently being processed.
- b) **Khaperkheda TPS:** A tender was floated on 16.02.2024 for the procurement of 50 TPD (12,200 MT) of Torrefied Biomass Pellets for Khaperkheda Unit-5 for one year. The tender has been finalized, and a LoA was issued to M/s Avaneesh Chemicals on 07.06.2024, with supply expected to commence in October 2024

To implement these developments, revised tenders for Bhusawal TPS and Koradi TPS for the procurement of Non-Torrefied Biomass Pellets are in progress. Upon finalization, tenders for the remaining power stations under MSPGCL will be processed in a sequential manner.

Considering that the procurement of biomass pellet is in advance stage, presently the Petitioner has not considered the usage of Biomass Pellet for the projection of fuel expenses for MYT period. In view of this, the Petitioner respectfully requests the Hon'ble Commission to allow the Petitioner to claim the relevant expenses under the Monthly FAC mechanism.

- 5.1.1.8 **Compensation under the Grid Code (Para 5.8.6)** - The Commission directs MSPGCL to take recourse to the provisions of the MERC (State Grid Code) Regulations, 2020 and the claim compensation accordingly from the Buyer (Para 12.4.7 of the MTR Order):

Compliance from MSPGCL:

The Petitioner respectfully submits that, since FY 2022-23, it has been raising compensation bills on a monthly basis in accordance with the provisions under the MERC (State Grid Code) Regulations, 2020.

- 5.1.1.9 **Incidental expenses towards fly ash utilisation (Para 9.27.6)** - The Commission directs MSPGCL to submit its claim of expenses in this regard duly submitting the compliance to the notifications of GoI along with justification under the relevant provisions of the Regulations in the true-up of the respective years for prudence check by the Commission. (Para 12.4.11 of MTR Order):

Compliance from MSPGCL:

The Petitioner submits that the expense incurred towards ash utilisation for the FY 2022-23 & FY 2023-24 are negligible. The total Ash generation and utilisation for FY 2022-23 and FY 2023-24 are provided below:

Table 15: Ash Generation and Utilisation in FY 2022-23 and FY 2023-24

TPS	For FY 2022-23			For FY 2023-24		
	Total Ash Generation (MT)	Total Ash Utilization (MT)	Total Ash Utilization (%)	Total Ash Generation (MT)	Total Ash Utilization (MT)	Total Ash Utilization (%)
Bhusawal	2244584	3006957	133.97	2282641	4031274	176.61
Nashik	1006041	1778515	176.78	1005334	1045007	104
Paras	963803	863968	89.64	1064926	799565	75.08
Parli	1210859	1525518	125.99	1210934	819356	67.66
Khaparkheda	2588347	2380417	91.97	2669388	2562875	96.01
Koradi	3269056	2362651	72.27	3581436	2532227	70.7
Chandrapur	4558176	1047377	22.98	4892711	1421957	29.06

Estimates of Ash Utilisation for MYT period

Furthermore, to enhance ash utilization, the Petitioner respectfully submits that the estimated expenditure for the utilization of Dry Fly Ash, Pond Ash, and the development of necessary infrastructure to improve ash utilization is projected to be Rs. 2838.92 Crore for the MYT period from FY 2025-26 to FY 2029-30. The plant wise breakdown of the projected expenses is provided below.

Table 16: Projected Expenses towards Dry Ash Utilisation (Rs. Cr.)

TPS	Considering Total Dry Ash generation for FY year 23-24 (lakh MT)	* Financial Assistance	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Total
			Financial burden					
		Rs/ MT						
Koradi	25	100	25	25	25	25	25	125
Khaperkheda	19	100	19	19	19	19	19	95
Chandrapur	35	120	42	42	42	42	42	210
Total	79		86	86	86	86	86	430

The Petitioner estimates that the expenditure towards Dry Ash Utilisation for next 5 years is Rs. 430 Cr.

Table 17: Projected Expenses towards Pond Ash Utilisation (Rs. Cr.)

TPS	Considering legacy pond Ash available as on (lakh MT)	*Financial Assistance	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Total
		Rs/MT	Financial burden					
Koradi	343.75	100	68.70	75.57	83.13	91.37	100.50	419.27
Khaperkheda	277.74		55.55	61.10	67.22	73.88	81.10	338.85
Chandrapur	889.73		178.00	195.80	215.38	236.79	259.88	1085.85
Total	1511.22		302.25	332.47	365.73	402.04	441.48	1843.97

The Petitioner estimates that the expenditure towards Pond Ash Utilisation for next 5 years is Rs. 1843.92 Cr. Currently, the Petitioner is providing financial assistance to Koradi, Khaperkheda and Chandrapur for Pond ash utilization as per BR No. 224.35 dated 12/07/2024.

Table 18: Projected Expenses towards infrastructure development to increase Ash utilization at various stations (Rs. Cr.)

TPS	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Tentative Amount in Rs CR
	Financial burden					
Nashik	4	4	4	4	4	20
Bhusawal	6	6	6	6	6	30
Parli	10	10	10	10	10	50
Paras	4	4	4	4	4	20
Khaperkheda	7	7	7	7	7	35
Koradi	20	20	20	25	25	110
Chandrapur	100	100	70	15	15	300
Total	151	151	121	71	71	565

The Petitioner estimates that Rs. 565 Cr. is required for the development of infrastructure to increase the ash utilisation. The various infrastructure development works including railway track, railway platform, weighbridge, Jumbo bag filling machine, roads, compound wall to ash bund, watch tower expenses towards security of Ash bund and promotional activities, sponsorship and conference etc. is envisaged in the next 5 years. The consolidated year wise expenses are provided below.

Table 19: Projected Expenses related to Ash Utilisation (Rs. Cr.)

Particular	Year wise Financial Burden					
	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Total
Towards Dry fly Ash utilization	86.00	86.00	86.00	86.00	86.00	430.00
Expenditure towards Pond Ash utilization	302.25	332.47	365.73	402.04	441.48	1843.97
Expenditure towards infrastructure development to increase Ash utilization	151.00	151.00	121.00	71.00	71.00	565.00
Total	539.25	569.47	572.73	559.04	598.48	2838.97

- 5.1.1.10 **Provisional tariff of Bhusawal Unit 6 (Para 10.2.10)** - The Commission directs MSPGCL to file a separate Petition for approval of provisional tariff of Bhusawal Unit 6 after incurring atleast 75% of the estimated capital cost and in compliance to the provisions of the Regulations. (Para 10.2.10 of MTR Order):

Compliance from MSPGCL:

The Petitioner respectfully submits that a separate petition (Case No. 236 of 2023) has been filed for the approval of the tariff for Bhusawal Unit 6, and the same is currently under the consideration of the Hon'ble Commission.

- 5.1.1.11 **Detailed Action Plan towards Coal Shortage (Para 4.3.10)** - MSPGCL shall submit its detailed action plan for long term solution based on scientific study on the alternative of procurement of coal to the financial impact of the same. coal short while filing the MYT petition for the next control period (Para 12.4.6 of MTR Order):

Compliance from MSPGCL:

The Petitioner, in compliance with the directives of the Hon'ble Commission, has formulated a comprehensive long-term strategy for alternative coal procurement. The alternative coal sources identified by the Petitioner include coal from commercial mines, rationalization of coal linkages, procurement through e-auctions, and captive mining.

In addition to these coal procurement strategies, the Petitioner has planned significant investments in technological upgrades at its thermal power plants. These upgrades aim to enhance plant efficiency and reduce fuel costs, thereby optimizing operational performance.

6 Impact of Orders in Case No. 227 of 2022 and Case No. 132 of 2023

6.1 Order in Case No. 227 of 2022 (MTR Order)

6.1.1 Revision in capital cost of Koradi units 8-10:

Revision in capital cost due to finalisation of LD amount:

- 6.1.1.1 Koradi Units 8-10 had achieved COD on 17 January, 2017. The Hon'ble Commission, in its Order dated 14 December, 2017 in Case No. 59 of 2017, had considered the estimated LD amount as Rs. 1093.02 Crore. The Petitioner in MTR Order (Case No. 227 of 2022) had submitted that final LD amount for BTG package as Rs. 102.49 Crore as against the estimated amount of Rs. 824.99 Crore considered by the Commission in Case No. 59 of 2017. Regarding BoP package, the Petitioner had submitted revised LD amount as NIL as against the estimated amount of Rs. 268.53 Crore considered by the Commission.
- 6.1.1.2 The Hon'ble Commission sought the justification for the wide variation in the LD amount considered by the Commission in its Order in Case No. 59 of 2017 and the revised LD amount submitted by the Petitioner in MTR Petition (Case No. 227 of 2022). In reply, the Petitioner submitted that at the time of approval of capital cost, it had submitted that there is a retained payment of Rs 641.28 Crore towards undischarged liabilities and that the amount of LD will be finalized at the time of contract closure. However, based on the analysis and ruling, the Commission had considered the maximum leviable LD of Rs 1093.02 crore based on the financial audit report subject to finalisation of LD amount.
- 6.1.1.3 The Hon'ble Commission perused the submission provided by the Petitioner in MTR Order for revision of LD amount for BTG and the Hon'ble Commission deems it prudent to consider the same. Accordingly, the revised final LD amount of Rs.102.50 Crore for BTG package has been considered by the Hon'ble Commission in MTR Order. As regards the LD amount for BoP package, the Hon'ble Commission does not find it prudent to consider as Nil when MSPGCL has lodged a claim of Rs. 267.87 Crore towards LD. The relevant excerpt of the ruling in this regard provided below:

"3.7.12 The Commission has perused the submissions of MSPGCL regarding the LD amount. As the final LD amount of BTG package has revised, the Commission deems it prudent to consider the same. As regards the LD amount for BoP package, the Commission does not find it prudent to consider the same as Nil when MSPGCL has lodged a claim of Rs. 267.87 Crore towards LD. The claim has been lodged by MSPGCL after it is convinced about it and it can be fairly expected that they would strongly pursue their claim. As submitted by MSPGCL, priority is given over to operational creditors over financial creditors. The Commission is of the view that revising the LD amount of BoP package to Nil at this stage would not be in the best interest of the stakeholders as MSPGCL would not be incited to pursue the matter diligently. Accordingly, the Commission has considered the LD amount of BoP package as Rs. 267.87 Crore.

The Commission shall consider the revision of the LD amount of BoP package after finalisation of the matter before the liquidator.”

- 6.1.1.4 The Petitioner submits that Since BoP contractor is facing liquidation process, claim against LD amount of Rs. 267.87 Crore is included in comprehensive claim lodged towards Liquidator, against BoP contract. However, till date, no amount has been received from liquidator, against recoverable amount. As per e-mail communication dated 03-05-2024 received from liquidator, it is stated that *“when the Corporate Debtor was sold as going concern, the terms of payment as per the approved acquisition plan envisaged payments to be shared only between secured creditors and the successful acquirer on a predetermined percentage basis”*. In this regard, the Petitioner has sought confirmation from the NCLT, Hyderabad bench through I.A. filed on 22nd October, copy of the same is attached as Annexure – 10. **In view of this, the Petitioner request the Hon’ble Commission to consider the final LD amount for BoP package as NIL and LD amount for BTG package as Rs.102.50 Crore approved in MTR Order for final consideration and approve the revised capital cost for Koradi Units 8-10. Accordingly, the Petitioner claim the revision in capital cost as under:**

Table 20: Revised capital cost of Koradi Unit 8-10 as on CoD due to finalization of LD

Particulars	Approved in Case No. 59 of 2017	Claimed in Case No. 227 of 2022	Approved in Case No. 227 of 2022	Claimed in Present MYT Petition
Capital cost including IDC (as on COD) (A)	12,243.36	12,243.36	12,243.36	12,243.36
LD amount				
BTG package	824.99	102.50	102.50	101.93
BOP package	268.53		267.86	-
Total LD Amount (B)	1,093.52	102.50	370.36	101.93
50% of LD (C=B*50%)	546.76	51.25	185.18	50.97
Net capital cost (A-C)	11,696.60	12,192.11	12,058.18	12,192.40
Incremental capital cost as on COD		495.26	361.33	134.22

- 6.1.1.5 In the MTR Order the Hon’ble Commission has approved the revised capital cost of Rs.12058.18 Crore considering the LD amount of Rs.102.50 Crore and Rs.267.86 core towards BTG package and BoP package respectively. Thus, the Hon’ble Commission has allowed the impact of incremental capitalisation of Rs.361.33 Crore (Rs. 12058.18 Crore less Rs.11696.60 Crore) on Annual fixed cost (AFC) in MTR Order. Considering LD recovery for BOP Package as NIL, Incremental capital cost worked out to Rs 133.93 crores. This incremental cost will be effective from Date of COD. i.e., 17-01-2017. As a result, additional capitalisation of Rs.133.93 Crore for FY 2016-17 to be considered and accordingly, impact on AFC from FY 2016-17 to FY 2021-22 to be allowed. For FY 2022-23, opening balance of GFA, normative loan, normative equity to be considered including the additional capitalisation of Rs.133.93 Crore.

6.1.1.6 In view of above, following is the calculation of GFA or cumulative capitalisation as on 31.03.2022.

Table 21: Balance of GFA or cumulative capitalisation as on 31.03.2022

Particulars	Claimed in Present MYT Petition
Capital cost including IDC (as on COD) (A)	12,243.36
LD amount	
BTG package	102.50
BOP package	-
Total LD Amount (B)	102.50
50% of LD (C=B*50%)	51.25
Net capital cost (A-C)	12,192.11
Add: additional capitalisation due to UDL	
FY 2016-17	
FY 2017-18	183.47
FY 2018-19	-
FY 2019-20	12.23
FY 2020-21	80.23
FY 2021-22	19.02
Total	294.95
Add: Routine additional capitalisation	
FY 2016-17	0.00
FY 2017-18	39.38
FY 2018-19	132.40
FY 2019-20	202.76
FY 2020-21	128.84
FY 2021-22	226.16
Total	729.54
Total Capitalisation as on 31.03.2022	13,216.60

6.1.1.7 The aforementioned closing balance of capitalisation or GFA as on 31.03.2022 have been considered as opening balance for FY 2022-23.

6.1.1.8 Accordingly, considering the impact of additional capitalisation due to UDL, LD and routine add cap, following is the summary of the capital cost as on 31.03.2022.

Table 22: Summary of cumulative capitalisation of Koradi Unit 8-10 as on 31.03.2022

Particulars	Approved in Case No. 59 of 2017	Claim in present petition
Capital cost including IDC (as on COD) (A)	12,243.36	12,243.36
Additional capitalisation		729.54
Add cap due to discharge of UDL		294.95
LD Amount	1,093.52	101.93
50% of LD amount	546.76	50.97
Cumulative capital cost as on 31.03.2022	11,696.60	13,216.88

Revision in capital cost due to release of undischarged liabilities for FY 2022-23:

6.1.1.9 As regards to undischarged liabilities (UDL) of FY 2022-23, the Hon'ble Commission in MTR Order has stated as under:

*"3.7.19 The Commission has perused the submissions of MSPGCL regarding the discharge of liabilities. Based on the same, the Commission deems it prudent to approve the discharge of liabilities upto the extended cut-off date i.e., 31 March, 2022. As regards the liabilities discharged post the extended cut-off date, viz., from FY 2022-23 onwards, the Commission **shall take the final decision on the same at the time of true-up of the respective years, based on the prudence check of MSPGCL's submissions.**" (Emphasis supplied)*

6.1.1.10 In light of the above ruling of the Hon'ble Commission, the Petitioner submits that UDL discharged during FY 2022-23 of Rs.121.44 Crore and accordingly additional capitalisation of Rs.121.44 crore have been considered for Koradi Units 8-10 in True up chapter of FY 2022-23.

6.1.1.11 Following is the status of UDL of Koradi Units 8-10 after discharge of UDL of Rs.121.44 Crore during FY 2022-23.

Table 23: Status of UDL of Koradi Units 8-10 as on 31st March 2023

FY	Opening UDL for the Year	Liabilities Discharged during the year	Cumulative Discharged	Balance UDL
FY 2017-18	641.28	183.47	183.47	457.81
FY 2018-19	457.81	-	183.47	457.81
FY 2019-20	457.81	12.22	195.69	445.59
FY 2020-21	445.59	80.23	275.92	365.36
FY 2021-22	365.36	19.02	294.94	346.34
FY 2022-23	346.34	19.51	314.45	326.83

6.1.1.12 The Petitioner has considered capitalisation of Rs 121.44 Crore in FY 2022-23. The Petitioner submits that in this chapter, additional ARR is claimed for the period from FY 2016-17 to FY 2021-22 and additional ARR for subsequent years have been considered in overall ARR of Koradi units 8-10 for the period from FY 2022-23 to FY 2029-30. The detailed working in excel file for the impact of LD and UDL in case of Koradi units 8-10 is attached as **Annexure -11**.

6.1.1.13 During the FY 2016-17 to FY 2021-22, corresponding to target availability of 85%, actual availability of the plant was 58.63%, 53.98% and 46.47% respectively. As per actual availability following is the amount to be recovered. The Petitioner submit the claim of recovery as shown as under:

Table 24: ARR to be allowed on account of LD finalization of Koradi Unit 8-10 from FY 16-17 to FY 21-22

Particulars	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22
Depreciation	0.72	7.09	7.09	7.11	7.09	7.09
Interest on Loan	2.20	9.47	8.09	7.47	7.18	6.11
Return on Equity	0.31	3.02	6.24	6.26	5.64	5.64
IoWC	0.06	0.34	0.34	0.34	0.29	0.27
Additional ARR to be allowed	3.28	19.91	21.77	21.18	20.20	19.11
Normative Availability	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%
Actual Availability	58.63%	53.98%	46.67%	53.76%	65.78%	63.00%
Amount to be recovered	2.26	12.65	11.95	13.39	15.63	14.16

6.1.2 Revision in capital cost of Bhusawal Units 4&5:

- 6.1.2.1 The Petitioner respectfully submits that Bhusawal Units 4 & 5 achieved COD on 3 January 2014. The Hon'ble Commission, through its Order dated 20 April 2015 in Case No. 201 of 2014, approved the capital cost for Bhusawal Units 4 & 5. In the said Order, the Hon'ble Commission directed the Petitioner to submit a detailed report on the actual LD levied and recovered from the contractors upon finalisation of the contracts. This was to enable the Hon'ble Commission to factor the same in while approving the final capital cost. Subsequently, in its Order dated 30 March 2020 in Case No. 296 of 2019, the Hon'ble Commission reiterated its directive to the Petitioner to submit details regarding the LD recovered from contractors for Bhusawal Units 4 & 5.
- 6.1.2.2 In compliance with the above Orders, the Petitioner levied an LD amount of Rs. 250.25 Crore on the BTG contractor, Bharat Heavy Electricals Limited (BHEL), which remains uncontested as of the date of submission of this MYT Petition. Additionally, the Petitioner had levied an LD of Rs. 189 Crore on the Balance of Plant (BoP) contractor, Tata Projects Limited (TPL). However, TPL entered into arbitration, and as per the Arbitrator's Award dated 30 August 2022, no LD was deemed leviable on TPL. Thus, against the estimated total LD amount of Rs. 339.54 Crore considered by the Hon'ble Commission in Case No. 201 of 2014, the actual LD stands at Rs. 250.54 Crore.
- 6.1.2.3 The Petitioner further submits that the Hon'ble Commission, in its Order in Case No. 201 of 2014, had deducted 50% of the estimated LD of Rs. 339.54 Crore, amounting to Rs. 169.77 Crore, from the capital cost. With the revision of the LD amount, the deducted amount now stands revised to Rs. 125.77 Crore. Consequently, the incremental capital cost to be allowed as of the COD amounts to Rs. 44.50 Crore. Furthermore, the Petitioner had to bear additional expenses amounting to Rs. 23.90 Crore, which includes
- Additional work: Rs. 9.15 Crore
 - Arbitration expenses: Rs. 3.01 Crore
 - Prolongation works: Rs. 4.80 Crore
 - Cost of maintaining Bank Guarantee: Rs. 3.80 Crore
 - Interest Allowed to TPL: Rs.3.14 Crore

6.1.2.4 Following is the tabulation of pointwise details of aforementioned expenses provided in Arbitration Award;

Point in Arbitration Award	Description	Amount (Rs Crore)
Point No 926	Prolongation cost	4.80
Point No 929	Additional Work	9.15
Point No 785	Retaining Wall	1.76
Point No 786, 792	Additional RCC encasing	0.56
Point No 793/806	Increase in Box culvert Size	0.34
Point No 807 / 816	Increase in depth of CW pump house	3.47
Point 817, , 828	Ash pipeline	1.87
Point No 829, , 839	Boiler lift	0.17
Point No 840, , 850	Boiler illumination work	0.97
Point No 933	Arbitration Expenses-1	0.11
Point No	BG Charges	3.69
Amount Allowed in Award Total (A)		17.75
(B) Add Wrongful Recoery		15.19
(C) Chimney retention Amount		9.92
(D) Total Amount of DD including Interest		42.86
(E) Add interest		3.14
Total		46.00

6.1.2.5 Accordingly, the Petitioner submits that amount of incremental capitalisation as shown below on account of Arbitration Award;

Particulars	Description	Amount (Rs Crore)
Amount Allowed in Award Total (A)		17.75
Point No 933	Pre award expenses already incurred Arbitration Expenses-2	3.01
(E)	Interest Allowed to TPL	3.14
Claim for Incremental capital cost		23.90

6.1.2.6 In view of above claim of Rs.23.90 Crore, the incremental capitalisation as per revised capital cost would be as under:

Particulars	Revised Cost of the project as per actual/recoverable LD (Approved in Case No. 227 of 2022)	Revised Cost of the project as per actual/recoverable LD
	Rs. crore	Rs. crore
Hard Cost	5,099.92	5,099.92
IDC	1,327.63	1,327.63
Less: 50% of the estimated Liquidated Damages	125.27	125.12
Capital Cost	6,302.29	6,302.43
Plus Additional Capital cost burden considering the Arbitration award & cost of arbitration		23.90
Total capital cost	6,302.29	6,326.34
Differential Additional capital cost claim in this petition		24.05

6.1.2.7 Further, it is submitted that as a result of Arbitration Award the Petitioner has deposited DD of Rs.46 Crore to High Court, Mumbai on account of aforementioned expenses. It may be noted that out of Rs.46 Crore, the amount of Rs.15.19 Core and Rs.9.92 Crore are paid due to reimbursement of wrongful recovery and release of retention amount of chimney. Hence, the Petitioner submits that total of Rs.25.11 Crore (Rs.15.19 Crore and Rs.9.92 Crore) is considered as discharge of UDL. However, in Case No. 201 of 2014, the Hon'ble Commission has approved means of finance for Bhusawal Unit 4-5 excluding amount of undischarged/unfunded liabilities.

“4.7.5 The Commission has considered the Means of Finance for total Capital Cost, as approved by the Commission upto COD of the Project before deduction of Liquidated Damages, in proportion to the Means of Finance and Undischarged Liabilities upto COD as submitted by MSPGCL. The Means of Finance upto COD approved by the Commission is given in the Table below:

Table 4-23: Means of Finance upto COD (Rs. Crore)

Particulars	Approved	% of Debt and Equity
Debt	4601.26	79.59%
GoM Equity	1179.99	20.41%
Undischarged Liabilities	476.54	
Total	6257.79	

4.7.6 The Commission will approve the revised Project Cost and revised Means of Finance based on actual Liquidated Damages amounts and actual funding of Undischarged Liabilities.”

6.1.2.8 In view of above, the Petitioner submits that the Hon'ble Commission has approved capitalisation towards undischarged liabilities and ruled that funding shall be allowed on actual discharge of unfunded liabilities. Hence, funding on account of UDL discharge of Rs.25.11 Crore is claimed considering normative debt equity ratio of 70:30 from FY 2023-24.

6.1.2.9 In the MTR Petition, the Petitioner had submitted that these additional expenses should be capitalised in FY 2022-23. In response, the Hon'ble Commission directed the Petitioner to include the said amounts in its claim of the final true-up for FY 2022-23, along with all supporting documents for a prudence check by the Hon'ble Commission.

6.1.2.10 Accordingly, the supporting documents for the additional amount of Rs.23.90 Crore are provided in the **Annexure - 12**.

6.1.2.11 Further, considering that revision in capital cost is entitled from the date of CoD, the Petitioner is entitled for consequential impact on Annual fixed cost (AFC) from the date of CoD.

6.1.2.12 Considering actual availability corresponding to target availability following is the amount to be recovered for the period from FY 2013-14 to FY 2021-22. The Petitioner submit the claim of recovery as shown as under:

Table 25: ARR to be allowed on account of additional expenses in regard to LD finalization of Bhusawal Unit 4-5 from FY 13-14 to FY 21-22

Particulars	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22
Depreciation	0.31	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27
Interest on Loan	0.56	2.23	2.02	1.62	1.49	1.36	1.24	1.11	0.97
Return on Equity	0.18	0.76	0.76	0.37	0.37	0.76	0.76	0.71	0.69
IoWC	0.03	0.11	0.10	0.06	0.05	0.06	0.05	0.04	0.04
Additional ARR to be allowed	1.08	4.36	4.15	3.32	3.18	3.45	3.32	3.14	2.97
Normative Availability	80.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%
Actual Availability	55.37%	82.64%	89.09%	93.49%	80.90%	82.03%	83.72%	92.51%	77.81%
Amount to be recovered	0.74	4.24	4.15	3.32	3.03	3.33	3.27	3.14	2.72

6.1.2.13 Closing balances of GFA, normative loan, equity as on 31.03.2022 are considered as opening balances for FY 2022-23, hence the consequential impact of aforesaid capitalisation of Rs.24.05 Crore for the FY 2022-23 onwards is considered in the true up of year from FY 2022-23 onwards. Therefore, the impact of aforesaid capitalisation on AFC has been shown upto FY 2021-22 in above table. Whereas impact of funding of UDL discharged of Rs.25.11 Crore is considered from FY 2023-24 onwards. The Petitioner request the Hon'ble Commission to approve above impact on AFC.

6.1.3 Revision in capital cost of Chandrapur units 8-9:

6.1.3.1 As regards to the UDL of Chandrapur Units 8-9, UDL of Rs.13.43 Crore and Rs.2.07 Crore has released during FY 2022-23 and FY 2023-24 respectively. The said amount of UDL is considered as additional capitalisation for the respective year in respective True up chapters. Following is the status of UDL of Chandrapur Units 8-9 post released of UDL as stated above:

Table 26: Status of UDL of Chandrapur Units 8-9 as on 31st March 2024 (Rs. Crore)

Particulars		Retention released 22-23	Retention released_23-24	Total Released	Closing SAP Balance as on 31.03.2024
Project	BTG	0.21	-		
	BOP	9.25	-		
	Other Than BTG-BOP	0.04	0.26		
	Total UDL Year Wise/Pkg Wise	9.50	0.26	9.76	123.10
Civil	BOP	-	-		
	Other Than BOP	3.93	1.81		
	Total UDL Year Wise/Pkg Wise	3.93	1.81	5.74	32.37
Total		13.43	2.07	15.49	155.47

6.1.4 Revision in capital cost of Parli unit 8:

6.1.4.1 In the MTR Order (Case No. 227 of 2022), the Hon'ble Commission has noted the submission of the Petitioner regarding release of Un-discharge liabilities for Parli unit 8 from FY 2016-17 to FY 2021-22 in table 3.15 of the MTR Order. The relevant table is reproduced as under:

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	Total
Project							
BTG	0.00	3.51	32.45	0.00	0.00	0.00	
BoP	0.00	0.98	1.20	0.87	0.00	0.00	
Others	0.00	0.00	1.36	0.00	0.00	0.00	
Sub-total	0.00	4.49	35.01	0.87	0.00	0.00	40.37
Civil							
BoP	0.00	0.00	0.00	0.17	0.00	0.00	
Others	1.08	0.68	1.21	0.04	0.26		
Sub-total	1.08	0.68	1.21	0.21	0.26	0.00	1.29
Total	1.08	5.17	36.22	1.08	0.26	0.00	41.66

6.1.4.2 The Hon'ble Commission has perused the submission of the Petitioner and approved discharge of liabilities up to the extended cut-off date i.e., 31.03.2022 and ruled that the liabilities discharged post the extended cut-off date, viz., from FY 2022-23 onwards, if any, the Commission shall take the final decision on the same at the time of true-up of the respective years, based on the prudence check of MSPGCL's submissions. Based on this discharge of liabilities approved by the Hon'ble Commission for Parli Unit 8 is as under:

Particulars	Claimed	Approved
Discharge of liabilities post COD		
FY 2017-18	5.17	5.17
FY 2018-19	36.22	36.22
FY 2019-20	1.08	1.08
FY 2020-21	0.26	0.26
FY 2021-22	0.00	0.00
Total	41.66	41.66

6.1.4.3 Based on the above additional capitalisation on account of discharge of UDL, impact on AFC was allowed by the Hon'ble Commission in MTR Order. However, it is further to submit that there were some inadvertent errors in submission of statement of discharge of liabilities for FY 2017-18 to FY 2021-22. The corrected statement is as below:

Table 27: Corrected Statement of discharge of liabilities of Parli Unit 8 (Rs. Crore)

Particulars	Revised amount
FY 2016-17	0.66
FY 2017-18	6.98
FY 2018-19	36.01
FY 2019-20	0.62
FY 2020-21	0.62
FY 2021-22	1.09
Total	45.97

6.1.4.4 Considering the corrected details of the discharge of liabilities for FY 2017-18 to FY 2021-22, and since the Hon'ble Commission has allowed the impact on Annual Fixed Charges (AFC) in the MTR Order based on the discharge of UDL details provided in the MTR proceedings, the differential or incremental amount of corrected discharge of UDL provided above and discharge of UDL as approved by the Hon'ble Commission in the MTR Order, has been considered for additional capitalization in the present Petition, as shown below:

Table 28: Differential additional claim due to release of UDL of Parli Unit 8 as on 31st March 2022 (Rs. Crore)

Particulars	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22
Discharge of UDL approved by MERC in Case NO. 227 of 2022	-	5.17	36.22	1.08	0.26	-
Discharge of UDL - Revised submission	0.66	6.98	36.01	0.62	0.62	1.09
Incremental additional capitalisation to be claimed as difference of above two	0.66	1.81	-0.21	-0.46	0.36	1.09

6.1.4.5 Based on the above differential additional capitalisation due to revision in release of UDL amount, impact on AFC for FY 2016-17 to FY 2021-22 have been calculated and tabulated as under:

Table 29: ARR to be allowed on account of revision in release of UDL of Parli U # 8 from FY 16-17 to FY 21-22 (Rs. Crore)

Particulars	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22
Depreciation	0.01	0.08	0.12	0.11	0.10	0.14
Interest on Loan	0.02	0.11	0.15	0.12	0.11	0.15
Return on Equity	0.01	0.04	0.11	0.09	0.09	0.11
IoWC	0.00	0.00	0.01	0.01	0.00	0.01
Additional ARR to be allowed	0.04	0.23	0.39	0.32	0.30	0.41
Normative Availability	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%
Actual Availability	4.28%	57.59%	82.90%	67.48%	97.06%	80.32%
Amount to be recovered	0.00	0.15	0.38	0.26	0.30	0.39

- 6.1.4.6 The Petitioner submits that while considering opening balance of GFA, RoE and normative loan for FY 2022-23 it has computed by including aforementioned incremental additional capitalisation to the closing balance for FY 2021-22 approved by the Hon'ble Commission in MTR Order
- 6.1.4.7 The Petitioner request the Hon'ble Commission to approve the aforementioned ARR due to revision in release of UDL of Parli Unit 8 and allowed the recovery along with appropriate carrying cost. The working of carrying cost has been calculated in subsequent section of this Petition.

The current status and detailed reasons for delay in discharge of undischarged liabilities (UDL) of Koradi Unit 8-10, Chandrapur unit 8-9 and Parli unit 8 are attached as Annexure – 12 (a).

In view of reasons and status submitted for the delay in discharge of liabilities, the Petitioner most respectfully submits the followings:

- In Case No. 227 of 2022, MSPGCL had requested the Hon'ble Commission for an extension of the cut-off date to March 31, 2024. While the Hon'ble Commission, in its order for the said case, did not explicitly grant the extension, it indicated that it would consider the matter based on submissions made in the true-up petitions for the respective years on a case-by-case basis.
- MSPGCL submits that the delay in discharging the undischarged liability (UDL) is primarily due to challenges in executing pending additional capitalisation works, caused by the bankruptcy of BoP vendors and subsequent COVID-related disruptions. Additionally, delays in finalizing the Final Time Limit Extension (FTLE) for various contracts, including BTG and BoP, have further contributed to the delay in discharging UDL related to various retentions.
- MSPGCL has made all-out efforts to complete the pending works and finalize the FTLE by March 2025. **In view of the above, MSPGCL respectfully requests the Hon'ble Commission to approve an extension of the cut-off date to March 31, 2025, and to permit MSPGCL to approach the Commission after the discharge of liability. For schemes that are delayed beyond FY 2024-25 or UDL discharges delayed beyond FY**

2024-25, MSPGCL seeks permission to submit the relevant details in the true-up petition for the respective year.

6.2 Order in Case No. 132 of 2023 (MTR Review Order)

6.2.1 Incorrect Opening balance of GFA considered of Bhusawal unit 4&5 and Khaperkheda Unit 5 for FY 2019-20:

- 6.2.1.1 The Hon'ble Commission, in the MTR Order, had approved the additional capitalisation of Rs. 39.66 Crore for FY 2018-19 as allowed in the Review Order dated 01.03.2020 in Case No. 180 of 2020. Accordingly, the opening GFA for FY 2019-20 works out to Rs. 3533.71 Crore. However, the Hon'ble Commission, in the MTR Order had approved the opening GFA for Khaperkheda Unit 5 for FY 2019-20 as Rs. 3435.13 Crore which is lower than the allowable capital cost of Rs. 3533.71 Crore by Rs. 98.58 Crore.
- 6.2.1.2 The Hon'ble Commission in the MYT Order dated 30.03.2020 in Case No. 296 of 2019, on approval of true-up for FY 2018-19, had approved the closing GFA for Bhusawal Units 4&5 for FY 2018-19 as Rs. 6508.55 Crore. The Hon'ble Commission, in the MTR Order, had approved the additional capitalisation of Rs. 44.50 Crore for FY 2018-19 as allowed in the Review Order dated 01.03.2020 in Case No. 180 of 2020. Accordingly, the opening GFA for FY 2019-20 works out to Rs. 6553.05 Crore. However, the Hon'ble Commission, in the MTR Order had approved the opening GFA for Bhusawal Units 4&5 for FY 2019-20 as Rs. 6522.99 Crore which is lower than the allowable capital cost of Rs. 6533.05 Crore by Rs. 30.07 Crore.
- 6.2.1.3 In view of above discrepancy in consideration of opening balance of GFA of Khaperkheda Unit 5 and Bhusawal units 4&5, the Petitioner had submitted this issue in review Order (Case NO. 132 of 2023). In regard to this, the Hon'ble Commission has ruled as under:

"17.5 Therefore, the Commission accepts the submission of MSPGCL for the correction in the GFA on account of error on face of the Record. The Commission restates the Opening GFA for Khaperkheda Unit 5 and Bhusawal Units 4&5 for FY 2019-20 as Rs. 3533.71 Crore and Rs. 6553.05 Crore respectively. MSPGCL is eligible for all the consequential benefits on RoE, Interest on Loan and Depreciation by considering the funding ratio."

*17.6 The Commission in-principle allows the revision in Opening GFA for Khaperkheda Unit No. 5 and Bhusawal Units No. 4&5 for FY 2019-20 as Rs. 3533.71 Crore and Rs. 6553.05 Crore respectively. However, as the impact of this revision in opening GFA on total entitlement of MSPGCL for the year is very marginal (Impact of around Rs.5 Crore) the Commission will allow the recovery of same as part of next MYT Petition." **"Emphasis added"***

6.2.1.4 In view of above, the consequential impact of above correction on AFC is submitted in subsequent section of this Petition.

6.2.2 Incorrect opening balance of loan considered of Khaperkheda unit 5 and Bhusawal Unit 4&5 for FY 2019-20:

6.2.2.1 The Hon'ble Commission had admitted the additional capitalization of Rs.39.66 Crore as allowed in Review Order (Case No. 180 of 2020) and accordingly allowed the incremental impact on AFC up to FY 2018-19. However, while considering the opening balance of loan for FY 2019-20, the loan component of Rs. 27.27 Crore towards additional capitalization of Rs.39.66 Crore allowed for Khaperkheda Unit No. 5 is not added while considering the opening balance for FY 2019-20. Further, the actual loan addition for Bhusawal Unit No. 4&5 is Rs. 23.10 Crore. However, the opening balance of loan for Bhusawal Unit No. 4&5 allowed by the Commission for FY 2019-20 has considered loan addition of Rs. 27.27 Crore inadvertently, which is factually addition of Khaperkheda Unit No. 5. Therefore, MSPGCL had requested the Hon'ble Commission in Review Petition (Case No. 132 of 2023) for review of the computations on account of error apparent from the face of the record.

6.2.2.2 In response to above, the Hon'ble Commission in-principle allowed the revision in opening balance for Khaperkheda Unit 5 and Bhusawal Units 4&5 for FY 2019-20. Accordingly, the Hon'ble Commission approved the opening loan balance for Khaperkheda Unit 5 and Bhusawal Units 4&5 for FY 2019-20 as Rs. 1340.99 Crore and Rs. 2943.61 Crore in Review Order in Case No. 132 of 2023. However, as the impact of this revision in opening loan balance on total entitlement of the Petitioner for the year is very marginal the Hon'ble Commission allowed the recovery of same as part of next MYT Petition.

6.2.2.3 The consequential impact of the above correction is worked out in subsequent section of this Petition.

6.2.3 Incorrect opening balance of Equity considered of Khaperkheda Unit No. 5 for FY 2019-20:

6.2.3.1 The Hon'ble Commission had allowed additional capitalization of Rs.39.66 Crore approved for Khaperkheda Unit No. 5. However, in the MTR Order, the corresponding equity component of Rs. 9.08 Crore has not been considered by the Hon'ble Commission while approving the opening balance of equity for FY 2019-20 of Khaperkheda Unit No. 5. In this regard, the petitioner has sought above correction in opening balance of equity and as part of Review Petition. In Review Order (Case No.132 of 2023), the Hon'ble Commission has accepted the Petitioner's submission for review on account of error on the face of record. Accordingly, the Hon'ble Commission has approved opening equity balance of Khaperkheda Unit 5 for FY 2019-20 as Rs.717.88 Crore. However, as the impact of this revision in opening loan balance on total entitlement of the Petitioner for the year is very marginal the Hon'ble Commission allowed the recovery of same as part of next MYT Petition.

6.2.3.2 In view of above, the Petitioner claims the consequential impact of above correction in equity of Khaperkheda Unit 5 in subsequent section of this Petition.

6.2.4 Incorrect Rate of Interest on loan considered for Bhira Hydro station:

6.2.4.1 For the computation of interest on normative loan of Bhira Hydro station, in absence of actual loan, the Hon'ble Commission has considered 0% interest rate and allowed NIL interest in MTR Order. The Petitioner has submitted this issue as part of Review Petition and requested to consider the interest rate of 10% on similar lines of FY 2020-21, in absence of actual loan portfolio.

6.2.4.2 In regard to this, the Hon'ble Commission has restated the interest rate of 10% from FY 2021-22 for Bhira Hydro station in Review Order (Case No. 132 of 2023). The relevant excerpt from the Order is as under:

"20.14 Therefore, the Commission accepts the submission of MSPGCL for the correction in the interest rate for Bhira Hydro from FY 2021-22 onwards account of error on face of the Record. The Commission restates the interest rate for Bhira Hydro from FY 2021-22 as 10%. However, as the impact of this revision in interest rate on total entitlement of MSPGCL for the year is very marginal the Commission will allow the recovery of same as part of next MYT Petition."

6.2.4.3 The consequential impact of the restating of interest rate of 10% for Bhira Hydro station for FY 2021-22 is submitted in subsequent section of this Petition.

6.2.5 Consequential impact of above correction approved in Order (Case No. 132 of 2023) on AFC:

6.2.5.1 In view of above corrections approved in Order (Case No.132 of 2023), there is requirement of allowance of incremental AFC claim for the period from FY 2019-20 to FY 2021-22. The incremental AFC claim for the year FY 2022-23 onwards is being considered in the respective year, as corrected opening balance of GFA, normative loan and normative equity is considered for the true up of respective years. The said incremental amount of claim component wise for FY 2019-20 to FY 2021-22 are tabulated below:

Table 30: Incremental AFC claim on account above points from FY 2019-20 to FY 2021-22 (Rs. Crore)

FY 2019-20	Total Depreciation			Total Interest on Loan (IoL)			Total RoE			Total additional claim	IoWC	Total additional/ differential AFC
Station Name	As per MTR Order Total Dep.	As per Revised working	Addnl Claim of Dep.	As per MTR Order Total Dep	As per Revised working	Addnl Claim of IoL	As per MTR Order Total Dep.	As per Revised working	Addnl Claim of RoE			
Bhusawal 4&5	339.89	341.42	1.53	295.57	295.05	-0.52	197.67	197.67	-	1.02	0.01	1.03
Khaperkheda 5	176.86	177.50	0.64	116.65	119.19	2.55	109.98	111.38	1.41	4.59	0.05	4.65
Total	516.75	518.92	2.17	412.22	414.25	2.03	307.65	309.06	1.41	5.61	0.07	5.68

FY 2020-21	Total Depreciation			Total Interest on Loan (IoL)			Total RoE			Total additional claim	IoWC	Total additional/ differential AFC
Station Name	As per MTR Order Total Dep.	As per Revised working	Addnl Claim of Dep.	As per MTR Order Total Dep	As per Revised working	Addnl Claim of IoL	As per MTR Order Total Dep.	As per Revised working	Addnl Claim of RoE			
Bhusawal 4&5	342.05	343.58	1.53	267.24	266.56	-0.68	187.75	187.75	-	0.85	0.01	0.86
Khaperkheda 5	177.78	182.11	4.33	99.12	101.36	2.24	99.86	101.14	1.27	7.85	0.08	7.93
Total	519.83	525.69	5.86	366.35	367.92	1.57	287.62	288.89	1.27	8.70	0.09	8.79

FY 2021-22	Total Depreciation			Total Interest on Loan (IoL)			Total RoE			Total additional claim	IoWC	Total additional/ differential AFC
Station Name	As per MTR Order Total Dep.	As per Revised working	Addnl Claim of Dep.	As per MTR Order Total Dep	As per Revised working	Addnl Claim of IoL	As per MTR Order Total Dep.	As per Revised working	Addnl Claim of RoE			
Bhusawal 4&5	343.46	344.99	1.53	231.30	230.46	-0.83	182.09	182.09	-	0.70	0.01	0.70
Khaperkheda 5	179.88	184.21	4.33	75.02	76.64	1.62	101.79	103.06	1.27	7.22	0.08	7.30
Hydro	36.75	36.75	-	1.03	1.11	0.08	4.62	4.62	-	0.08	0.00	0.08
Total	560.09	565.95	5.86	307.35	308.21	0.87	288.50	289.78	1.27	8.00	0.08	8.08

6.2.5.2 The Petitioner submit that the aforementioned consequential impact on AFC for Bhusawal Unit 4&5, Khaperkheda Unit 5 and Bhira Hydro station computed in pursuance with in-principal approval of the Hon'ble Commission provided in Review Order (Case No. 132 of 2023) on respective issues.

6.2.6 Erroneous computation at Table 7.1 (Cumulative revenue gap/(surplus) up to FY 2022-23 in MTR Order:

6.2.6.1 The Petitioner submits that in MTR Order for Chandrapur Units 8&9 the Hon'ble Commission while approving the incremental AFC for FY 2016-17 to FY 2018-19 on account of revision of capital cost of Chandrapur Units 8&9, had approved the amount of Rs. 55.58 Crore whereas the said amount has been considered as Rs. 53.41 Crore in the computation of cumulative revenue gap/(surplus) up to FY 2022-23. Hence, there is an error apparent on the face of Record and hence MSPGCL sought review of the same and requested to allow the differential amount of Rs. 2.17 Crore in Review Petition. In Review Order (Case No. 132 of 2023) the Hon'ble Commission has accepted the submission of the Petitioner for the correction in the cumulative revenue gap/(surplus) upto FY 2022-23 on account of error on face of the record and allowed differential amount of Rs.2.17 Crore. However, as the impact of this revision of cumulative revenue gap/(surplus) up to FY 2022-23 on total entitlement of the Petitioner for the year is very marginal, the Hon'ble Commission approved for the recovery of same as part of next MYT Petition.

6.2.6.2 Accordingly, the Petitioner submits the claim of recovery of Rs.2.17 Crore for the consideration of the Hon'ble Commission and request to allow the recovery in tariff of FY 2025-26.

6.2.7 Expenses not claimed in the MTR Petition:

6.2.7.1 The Petitioner submits that it had inadvertently failed to include the expenses amounting to Rs. 27.79 Crore for the period from FY 2019-20 to FY 2021-22

towards the consumption of lubricants and consumables and commission to agents in the MTR petition. Petitioner has mentioned the claim in the review petition and requested the Commission to allow the claim to be recovered. However, the Hon'ble Commission has viewed that the issue does not qualify for review as the expenses mentioned have not been claimed by Petitioner in the MTR petition.

6.2.7.2 The Petitioner submits the details of the expenses of Rs. 27.79 Crore in the table below,

Particulars	FY 19-20		FY 20-21	FY 21-22	Total FY 19-20 to FY 21-22
	Commission to agents	Consumption Lubricants & consumables	Consumption Lubricants & consumables	Consumption Lubricants & consumables	
Bhusawal		0.00	0.02	0.01	0.03
Chandrapur	0.39	0.22	0.48	1.31	2.40
Khaperkheda	4.66	0.03	0.01	0.10	4.80
Koradi		0.93	0.12	0.72	1.77
Nashik		0.02	0.19	3.09	3.30
Uran		0.01	0.01	0.03	0.05
Paras Units 3 & 4		0.04	0.00	0.13	0.17
Parli Units 6 & 7		5.86	0.02	0.08	5.96
Khaperkheda Unit 5		0.08	0.90	0.86	1.84
Bhusawal Units 4 & 5		0.38	0.87	2.45	3.70
Koradi Units 8, 9 & 10		0.11	0.08	0.37	0.56
Chandrapur Units 8 & 9		0.68	0.03	0.60	1.31
Parli Unit 8		0.00	0.04	0.55	0.59
Hydro		0.41	0.81	0.09	1.31
Total	5.05	8.77	3.59	10.38	27.79

6.2.7.3 While ruling on the aforesaid issue in Review Order (Case No. 132 of 2023), the Hon'ble Commission has noted and ruled as under:

"27. ISSUE XII: Expenses not claimed by MSPGCL in the MTR Petition:

MSPGCL's submission:

27.1 MSPGCL, in the Review Petition, submitted that it had inadvertently failed to include the expenses amounting to Rs. 27.99 Crore for the period from FY 2019-20 to FY 2021-22 towards the consumption of lubricants & consumables and commission to agents in the MTR Petition. MSPGCL requested the Commission to allow the same.

Commission's Analysis and Ruling:

27.2 The Commission notes that MSPGCL, in the Review Petition, submitted that it had inadvertently failed to include the expenses amounting to Rs. 27.99 Crore for the period from FY 2019-20 to FY 2021-22 towards the consumption of lubricants & consumables and commission to agents. MSPGCL requested the Commission to allow the same.

27.3 The Commission notes that the issue for review qualifies only upon the discovery of new and important matter or evidence which, after the exercise of due diligence, was not within his knowledge or could not be produced by the

review Petitioner at the time when the direction, decision or order was passed or on account of some mistake or error apparent from the face of the record, or for any other sufficient reasons.

27.4 In this particular issue MSPGCL has itself not claimed these expenses in the MTR Petition. This issue does not qualify for review as the said expenses have not been claimed by MSPGCL in the MTR Petition. Therefore, the review sought by MSPGCL in this issue is not maintainable.” (Emphasis added)

- 6.2.7.4 In light of the above ruling by the Hon’ble Commission, the Petitioner respectfully submits that while the claim was denied as it does not qualify for review. MSPGCL submits that it was an inadvertent error of omission of expenses incurred in FY 2019-20, FY 2020-21, FY 2021-22. Now in this petition, the Petitioner has included the differential claim for expenses related to the consumption of lubricants, consumables, and commission to agents for FY 2019-20, FY 2020-21, and FY 2021-22 in the current MYT Petition.
- 6.2.7.5 The Petitioner further submits that the Hon’ble Commission, in its ruling, mentioned the claimed amount as Rs. 27.99 Crore. However, the Petitioner submits that it has claimed expenses of Rs 27.79 Crore in review petition. To substantiate this claim, the Petitioner has reconciled the expenses with the Profit and Loss statements for the respective years, highlighting the unclaimed amounts. Additionally, a table detailing entitlement as per True-Up for these years has been provided, demonstrating that the claimed expenses exclude the unclaimed amounts being claimed in the present submission.
- 6.2.7.6 Furthermore, the Petitioner has included accounting ledger details from the SAP accounting software, showing that the total of these expense heads aligns with the unclaimed amounts now being claimed in this Petition. These details are presented in Annexure – 12(a)
- 6.2.7.7 The Petitioner most respectfully submits that despite best efforts, the Petitioner inadvertently failed to include these expenses in the last MTR Petition. Therefore, the Petitioner respectfully requests the Hon’ble Commission to approve the claim of Rs. 27.79 Crore, as outlined above.

6.2.8 Recovery of above claims:

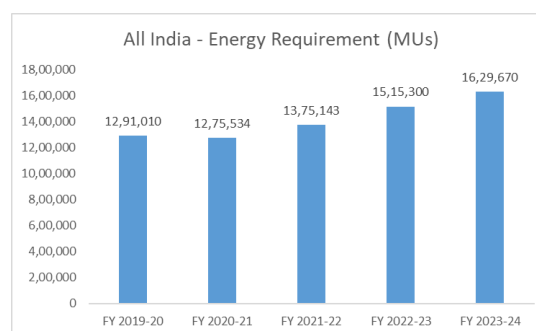
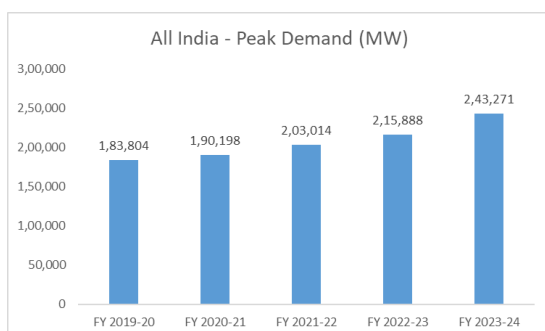
- 6.2.8.1 In Review Order, the Hon’ble Commission has allowed the issue in-principle and considering the marginal impact of these issues, allowed to claim the amount in MYT Petition. In light of this, since the recovery of the entitle amount is deferred, the Petitioner request the Hon’ble Commission to approve the above impact on AFC along with carrying cost on such amount. The carrying cost on the above incremental impact of AFC is calculated and submitted subsequently in chapter of Cumulative Revenue Gap.

7 Truing up for FY 2022-23

7.1 Operational challenges experienced by the Petitioner in Fuel Management during FY 2022-23

7.1.1 Post COVID power demand and supply scenario

- 7.1.1.1 The demand for power has significantly increased post-COVID, especially during FY 2022-23. As may be observed from below graphs of All India – Peak demand (MW) and All India – Energy requirement (MU's). This surge in demand is notably higher compared to previous years. However, despite this growing need for electricity, coal production has not kept pace, resulting in an insufficient power supply to meet the rising power demand at all India level.



Source: CEA – LGBR Report

7.1.2 Various directives issued by MoP in order to meet increasing demand

- 7.1.2.1 Due to the rising power demand following the COVID period, domestic coal production was insufficient to meet the nation's energy needs. To address this shortfall, the Hon'ble Ministry of Power (MoP) issued several advisories to all domestic coal-based power plants, instructing them to import coal for blending with domestic coal to meet their requirements.
- 7.1.2.2 MoP on 07.12.2021, has issued advisory to all domestic based power plants to import coal to meet their requirements by blending with imported coal to the extent of 4% by State generating companies and Independent Power Producers (IPPs).
- 7.1.2.3 MoP in its notification dated 18.05.2022, has issued that if the orders for import coal for blending are not placed by the generating companies by 31.05.2022, all the defaulter generating companies would have to import coal to the extent of 15% for blending for Qtr 1 (Apr-Jun 22) in the remaining period up to 31.10.2022. MoP further stressed the rising power demand and the domestic coal supply was not able to match the consumption, resulting in depletion of stocks in thermal power plants.
- 7.1.2.4 Further, taking into consideration that the coal supplies from domestic coal companies were not commensurate with the increased consumption of coal and increasing demand of electricity, MoP had issued the revised advisory on 28.04.2022 for importing of coal for blending purpose to meet the requirement of 10% of the total requirement by 31.10.2022.

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- 7.1.2.5 Further, MoP in its notification dated 26.05.2022, issued directions under section 11 of EA 2003 to the generating companies having domestic coal-based plants supplying electricity under section 63 of EA 2003 and clarified that any incremental expenditure on account of coal would be pass through in the tariff.
- 7.1.2.6 MoP vide letter dated 28.05.2022 had issued the following advisory to all the State Gencos/IPPs:
- a) Assess the remaining requirement (considering already awarded quantity) of their blending with imported coal for whole FY 2022-23 and also indicate the requirement upto 30.09.2022
 - b) Above requirement had to be urgently sent to MoC and CIL with a copy to MoP latest by 31.05.2022
 - c) As per the request received from States/IPPs, MoC & CIL would make arrangement for import of coal through Govt. to Govt. (G2G) mechanism ensure delivery of 1st tranche in Qtr 2 (Jul-Sep-22) on urgent basis
 - d) Tender under process by State GENCOs /IPP for importing coal for blending may be kept in abeyance to wait the price discovery by CIL through G 2 G route.
- 7.1.2.7 MoP has issued further advisory, vide notification dated 01.06.2022, with respect to import of coal for blending as under:
- a) All the State Generating companies /IPPs are directed that the blending targets for imported coal at the rate of 10% (by weight) would cover coal available from all domestic sources (CIL/SCCL/Captive).
 - b) Those state GENCOs/IPP who have either placed their indents with CIL or initiated their own tender processes, they will be allocated domestic coal as mentioned in letter dated 18.05.2022.
 - c) Those GENCOs /IPPs who either do not place their indents with CIL by 03.06.2022 or have not initiated their own tender processes for import coal procurement (for blending), they will be allocated only 70% of quantity of domestic coal as mentioned in letter dated 18.05.2022 from 07.06.2022 and allocation will further reduce to 60% from 15.06.2022.
 - d) Domestic coal thus saved on this account will be allocated to those GENCOs/IPPs who have already commenced blending.

7.1.3 Imported coal prices surged during FY 2022-23

- 7.1.3.1 It is to submit that due to the conflict between Russia and Ukraine, the prices of imported coal had risen significantly. Additionally, the post-COVID demand surge has further constrained the supply chain. Despite utilizing all available resources, there was still an insufficient supply of domestic coal to meet the current demand. As a result, all power generators have been directed to run their plants at maximum capacity using available coal sources. In view of above,

the prices of imported coal during FY 2022-23 were approximately above Rs.15000/MT.

7.1.4 Inability to convert benefit of blending of imported coal

7.1.4.1 As per the aforementioned advisories and directives issued by the Hon'ble MoP, the Petitioner was required to blend imported coal to meet 10% of its total requirement by 31.10.2022.

7.1.4.2 The Petitioner respectfully submits that, traditionally, the Petitioner has refrained from blending imported coal during the monsoon season due to specific operational challenges. Imported coal has an inherent property of absorbing moisture from the environment, and during monsoon showers, this moisture absorption increases significantly. For every 1% increase in moisture content, the loss in heat conversion is 40-50 kCal/kg. As the moisture level in the coal increases, it becomes difficult to maintain the coal mill fuel outlet temperature around the desired 70°C, with the actual temperature reduced to around 50-55°C due to the effect of moisture. Additionally, during the monsoon period, the presence of wet, sticky, and muddy coal leads to clogging during its flow into the boiler. To mitigate this, incidental water assisted poking is used to clear the blockages of the sticky coal, which further increases the moisture ingress/absorption.

7.1.4.3 However, due to the prevailing coal shortages and in compliance with the directives issued by the Hon'ble MoP, the Petitioner was compelled to blend imported coal during the monsoon season as well. Consequently, the benefits of blending imported coal were not fully reflected in the 'As Fired GCV'.

7.1.4.4 Central Electricity Authority (CEA) in its 'Report of the group for studying range of Blending of imported coal with domestic coal' issued in April 2012 has noted following,

"2.4 Compatibility of coals used for blending needs to be ensured to avoid problems in boiler operation due to large variations in aggregate/individual coal quality from acceptable design limits. For this, characteristics of both the domestic and imported coals should be examined for compatibility and if necessary, combustion tests may also be carried out beforehand. Slagging/fouling characteristics of ash should be carefully considered as high slagging coals may impose a limitation on reaching the rated capacity/load besides furnace cleaning and ash handling. When slagging coals are blended, it is necessary to conduct site trials, to establish a safe percentage of blending. Blending should be done cautiously and performance of boiler should be observed for any adverse performance."

7.1.4.5 In view of above, the benefit of blending of imported coal with domestic coal on the "As fired" GCV of coal as per mathematical calculation would not be necessarily same in actuals.

7.1.4.6 Hence, the Petitioner submits that during FY 2022-23, the variation between "As Received" GCV and "As Fired" GCV increased significantly, unlike in previous years. Therefore, the Petitioner respectfully requests the Hon'ble Commission

to consider the variations while approving the fuel cost for FY 2022-23 in True up.

7.2 Operational Performance of the stations

7.2.1 AVF and PLF

7.2.1.1 The overall actual AVF and PLF of the stations for FY 2022-23 is provided in the table below. As may be observed, the AVF of Khaperkheda unit 5 and Chandrapur units 8-9 have been more than above 80% in FY 2022-23. However, the PLF has been on the lower side for most of the stations. Relevant certifications in this regard from MSLDC for 2022-23 is enclosed as **Annexure - 13**.

Table 31: Actual Vs Approved Availability and PLF of Stations (FY 2022-23)

Station	Availability						PLF	
	Normative	Overall	High Demand season		Low Demand season		Normative	Actual
		Actual	Peak AVF	Off-Peak AVF	Peak AVF	Off-Peak AVF		
Bhusawal Unit 3	80.00%	56.785%	61.11%	61.04%	55.11%	55.42%	85.00%	39.032%
Chandrapur Units 3 -7	80.00%	52.122%	68.16%	68.10%	46.50%	46.88%	85.00%	48.281%
Khaperkheda Units 1-4	85.00%	63.627%	69.86%	68.56%	61.45%	62.01%	85.00%	58.689%
Koradi Unit 6	72.00%	71.375%	79.86%	80.43%	67.48%	68.58%	85.00%	70.891%
Nashik Units 3-5	80.00%	65.823%	71.65%	72.15%	63.79%	63.74%	85.00%	45.821%
Uran	85.00%	26.179%	33.62%	34.50%	23.24%	23.51%	85.00%	25.538%
Paras Units 3-4	85.00%	71.683%	82.37%	82.67%	67.98%	68.07%	85.00%	69.815%
Parli Units 6-7	85.00%	74.823%	77.35%	78.10%	73.29%	73.87%	85.00%	61.817%
Khaperkheda Unit 5	85.00%	84.699%	89.89%	91.41%	82.28%	82.61%	85.00%	79.248%
Bhusawal Units 4-5	85.00%	76.355%	81.35%	81.37%	75.53%	74.52%	85.00%	70.396%
Koradi Units 8-10	85.00%	63.720%	74.38%	73.63%	60.85%	60.29%	85.00%	62.898%
Chandrapur Units 8-9	85.00%	81.965%	88.64%	88.53%	80.56%	79.62%	85.00%	76.208%
Parli Unit 8	85.00%	54.910%	52.01%	52.74%	55.76%	55.66%	85.00%	49.918%

7.2.1.2 The key reasons for lower AVF are summarised below:

- **Lower gas availability in Uran** - As against an overall requirement of 3 MMSCMD, the supply was barely around 1.16 MMSCMD in FY 2022-23. With availability of 1.16 MMSCMD, Uran gas unit was able to generate 1491.22 MU (gross generation). The main reason for the low availability of the Uran station was the reduced gas supply, which was beyond the control of the Petitioner. The Petitioner has made every effort to utilize the available gas to the fullest extent. The table below illustrates the gas availability, achievable generation, and actual generation, demonstrating that the Petitioner has optimally utilized the available gas supply.

Table 32: Details of Gas availability, achievable generation and actual generation of Uran plant

Month	APM DNQ	Actual total Gas Consumption	Actual Generation in respect of consumption	CV	Heat Input (DNQ x cv)	Operational Heat rate	Possible Generation with DNQ (Heat Input/Operative Heat Rate)
Unit	MMSCM	MMSCM	MU	kCal/sm3	MkCal	kCal/kwh	MU
Apr-22	50.54	49.75	192.51	8245	416679.58	2131	195.57
May-22	43.48	43.13	168.36	8227	357716.12	2108	169.73
Jun-22	33.38	32.86	128.75	8374	279533.54	2138	130.75
Jul-22	29.68	29.32	113.01	8229	244265.71	2135	114.41
Aug-22	39.79	39.64	151.30	8664	344713.36	2270	151.87
Sep-22	26.77	24.92	75.81	8726	233544.64	2868	81.42
Oct-22	26.33	24.64	68.63	8771	230977.40	3149	73.35
Nov-22	30.46	28.30	88.87	8791	267757.36	2800	95.64
Dec-22	33.47	33.15	126.08	8791	294266.27	2311	127.33
Jan-23	40.37	40.30	142.86	8859	357584.70	2499	143.10
Feb-23	33.19	33.10	123.75	8879	294689.53	2375	124.09
Mar-23	37.35	32.39	111.28	8870	331303.38	2582	128.33
Total	424.81	411.50	1491.22	8595	3651241.29	2372	1539.46

Actual consumption of gas for FY 2022-23 is 96.87% of total allocated DNQ. Actual generation is 85.8% of the achievable generation using received gas quantity & at normative SHR for combined cycle operation. However, it is to submit that during this period due to major accident incidence in Block 1 (GT 5, GT 6 + WHR A0), only one block (GT 7 + GT 8 + WHR B0) was available for combined cycle operation and the GT 5 & GT 6 were available in open cycle. So actual overall SHR was higher, resulting in lower generation.

- **Coal Related Issues** – The overall generation loss due to supercritical coal stock and poor coal quality was around ~7.3%. Besides, the poor quality of coal and problems related to wet coal during monsoon also has significant impact of around 4-5% in generation loss. The impact was largely noticed during the monsoon months. Further, critical coal stock position compelled MSPGCL to lift whatever coal available to keep stations running.
- **Nashik Units 3-5** – The generation or power scheduling from Case IV, Phase-3 commenced from Oct-2022 onwards against Nashik Unit 3-5. Prior to this, from April 2022 to September 2022, Nashik Units 3-5 were operated on their own using coal received at the station. Furthermore, Nashik Units 3-5 are placed in a lower priority range within the Merit Order Dispatch stack. Due to prevailing critical coal shortage conditions, the best available coal is being diverted to nearest efficient stations, resulting in coal quantity and quality issues for coal being allocated to Nashik. Additionally, as Nashik is a vintage unit, certain O&M challenges are inherent in the plant, specifically in monsoon. Consequently, the availability of Nashik Units 3-5 during FY 2022-23 stood at 65.82%.

7.2.1.3 Khaperkheda Unit 5 and Chandrapur Units 8-9 successfully maintained peak and off-peak availability during the high-demand season. However, Paras Units 3-4 narrowly missed achieving normative availability during this period due to critically low coal stock. For other stations, low availability was attributed to

factors such as critically low coal stock at times, poor coal quality, issues with wet coal, and problems like coal cycle or boiler tube leakages.

- 7.2.1.4 The Petitioner respectfully submits before the Hon'ble Commission to consider and approve the Target Availability as recommended in the CPRI Energy Audit reports (maximum achievable AVF of 76.75%) for Khaperkheda Units 1 to 4. The normative availability approved by the Hon'ble Commission for Khaperkheda Units 1 to 4 is higher than the achievable availability. It leads to under recovery of AFC due to shortfall of availability in comparison with normative availability. Further, the Petitioner most respectfully submits that the norm of AVF approved by the Hon'ble Commission is higher and it is not achievable, while the actual availability of the station is comparable with the AVF recommended in the CPRI report. In light of this, the Petitioner humbly requests the Hon'ble Commission to consider these recommendations in its deliberations and allow the appropriate recovery of AFC under True up.
- 7.2.1.5 Furthermore, the Petitioner respectfully requests the Hon'ble Commission to relax the Target Availability Factor for Uran GTPS to align with the actual performance levels. As the actual availability factor (26.18%) is significantly lower than the targeted value, due to the inadequate supply of gas. Therefore, the Petitioner respectfully requests the Hon'ble Commission to treat the actual availability as equivalent to normative availability and permit the full recovery of the fixed costs for the Uran station.
- 7.2.1.6 The station wise reason for lower availability is provided in **Annexure -14** along with this Petition.

7.2.2 Station Heat Rate

- 7.2.2.1 The station wise normative SHR vis-à-vis actual SHR for FY 2022-23 is shown in below table.

Table 33: SHR of MSPGCL Stations in 2022-23 (kCal/kWh)

Station	Approved	Actual
Bhusawal Unit 3	2,787	3,085
Chandrapur Units 3-7	2,688	2,733
Khaperkheda Units 1-4	2,630	2,726
Koradi Unit 6	2,456	2,603
Nashik Units 3-5	2,754	2,781
Uran - Open Cycle	2,900	3,154
Uran - Combined Cycle	2,035	2,156
Paras Units 3-4	2,430	2,447
Parli Units 6-7	2,430	2,517
Khaperkheda Unit 5	2,375	2,463
Bhusawal Units 4-5	2,375	2,417
Koradi Units 8-10	2,230	2,480
Chandrapur Units 8-9	2,375	2,386
Parli Unit 8	2,430	2,536

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- 7.2.2.2 As it may be observed the Station Heat Rate of all of the stations have exceeded the norms on the account of frequent start-ups and shut downs, partial loadability. For Uran, SHR mainly depends on the mode of operation i.e., open cycle operations and the lower availability of gas impacts the GSHR. Uran has total capacity 672 MW comprising of 4 x 108 MW (GT-5, GT-6, GT7 & GT-8) units and 2 x 120 MW (A0 & B0). While the GTs can be operated individually in open cycle, to achieve optimal generation at optimal efficiency, the entire plant have to normally runs on combined cycle operations i.e., A0 block along with GT-5 & GT-6 and B0 block along with GT-7 & GT-8. In absence of a GT amongst the combination, one GT can be operated with the Waste Heat Recovery Unit (WHR), however this results in partial load operation which has its obvious effects on plant efficiency.
- 7.2.2.3 To run all units of Uran, the gas requirement is 3.5 MMSCMD. However, annual gas availability during FY 2022-23 was barely 1.16 MMSCMD. Due to limited gas availability, the steam turbines at GTPS Uran were often operated in a 1GT-1ST combination. Operating a steam turbine with a single gas turbine significantly increases the heat rate. Additionally, the low gas availability has led to increased withdrawal and cycling of the machines, with a higher number of machine synchronizations further raising the heat rate. In the year 2022-23, the gas turbines were withdrawn 39 times due to gas shortage while in combine cycle mode of operation.
- 7.2.2.4 GT-5&6 was on open cycle mode from 07.09.2022 onwards. There was no continuous schedule to these open cycle units and these units were synchronized/withdrawn according to the demand of LD Kalwa and also considering the actual gas availability. Due to these factors, there were increased synchronization/withdrawals which resulted in high heat rate. Also, the gas turbines of GTPS Uran are 39 years old and Steam turbines are 30 years old. As the useful life of the plant has been passed by, the heat rate norms may not be achievable.
- 7.2.2.5 As per MERC (MYT) Regulations 2019, norm of SHR for combined cycle and open cycle approved of 2035 kCal/kWh and 2900 kCal/kWh respectively and norm of Auxiliary consumption for combined cycle and open cycle is 3.1% and 1% respectively.
- 7.2.2.6 The actual overall GSHR of Uran station was 2372 kCal/kWh, which was achieved during a mix of operational combinations of the GTs and WHR units. The deviations in SHR are mainly on account of partial load operations. During last few years, GT-7 was under shutdown due to failure of turbine blades. Due to non-availability of GT-7, the WHR B0 block is continuously running with half load along with GT-8 unit. This partial load operation results in higher GSHR and higher AEC.
- 7.2.2.7 The segregation of generation through combined cycle operations and open cycle operation is as below.
-

Actual Net generation MUs				
		Open cycle	Combined cycle	Total
FY 2022-23	Mus	322.301	1168.914	1491.215
	% of total	21.61%	78.39%	

- 7.2.2.8 Considering normative SHR of 2035 kcal/kWh for combined cycle operation and 2900 kcal/kg for open cycle operation, the weighted average normative SHR for the actual operated capacity combination is 2222 kcal/kg.
- 7.2.2.9 In light of above, the Petitioner requests the Hon'ble Commission to relax the normative GSHR of Uran station to actual level and allow the fuel cost accordingly.
- 7.2.2.10 With reference to the SHR of Koradi 6, the Petitioner submits that the guaranteed SHR for the unit is 2350 kCal/kWh has been approved by the Hon'ble Commission as normative SHR. The Petitioner submits that even for the new generating stations, an allowance of 4.5% from the design SHR (5% as per MYT regulation 2019) is allowed in order to factor local operating conditions and deviations in overall quality of coal and associated parameters. Accordingly, it is requested that the normative SHR may kindly be considered as $2350 \times 1.045 = 2456$ kCal/kWh.
- 7.2.2.11 Actual SHR is higher than the normative SHR in almost all the stations as shown in above table, except SHR of Nashik units 3-5, Paras Units 3-4 and Chandrapur Units 8-9 which is marginally higher than the norm. The SHR of the stations is higher than the norm mainly because of the partial loading and higher oil consumption. The detail reasoning for the station wise higher SHR is provided in Annexure - 14.

7.2.3 Secondary Oil Consumption (SFOC)

- 7.2.3.1 The station wise normative SFOC vis-à-vis actual SFOC for FY 2022-23 is shown in below table.

Table 34: SFOC in MSPGCL's stations for 2022-23

Particulars	Norm	Actual
	ml/kwh	ml/kwh
Bhusawal Unit 3	1.40	5.76
Chandrapur Units 3 -7	1.00	4.76
Khaperkheda Units 1-4	1.20	4.91
Koradi Unit 6	2.81	5.59
Nashik Units 3-5	1.00	4.55
Paras Units 3-4	0.50	1.74
Parli Units 6-7	0.50	3.78
Khaperkheda Unit 5	0.50	0.33
Bhusawal Units 4-5	0.50	2.03
Koradi Units 8-10	0.50	0.64
Chandrapur Units 8-9	0.50	0.36
Parli Unit 8	0.50	5.15

- 7.2.3.2 The Petitioner submits that the Khaperkheda Unit -5 and Chandrapur Units 8&9 units which performed consistently in FY 2022-23, wherein the actual oil consumption was even lower than the norms. The higher oil consumption in the balance units was on account of frequent backing down, shut down, start-ups and partial loading on account of coal shortages.
- 7.2.3.3 The Petitioner also submits that on account of lower PLF of the units, the oil consumption was on a higher side in order to keep the boiler flame stable to avoid tripping.
- 7.2.3.4 The detail reasoning for the station wise higher SFOC than the norm is provided in Annexure - 14.

7.2.4 Auxiliary Consumption

- 7.2.4.1 The actual auxiliary consumption of MSPGCL's stations in FY 2022-23 vis-à-vis the norms are provided in the table below.

Table 35: Auxiliary Energy Consumption of MSPGCL's stations in FY 2022-23

Particulars	Norm	Actual
Bhusawal Unit 3	10.96%	14.56%
Chandrapur Units 3 -7	9.34%	11.09%
Khaperkheda Units 1-4	10.21%	11.25%
Koradi Unit 6	10.81%	11.28%
Nashik Units 3-5	10.75%	12.61%
Uran - Open Cycle	1.00%	1.82%
Uran - Combined Cycle	3.10%	3.11%
Paras Units 3-4	10.25%	10.98%
Parli Units 6-7	10.25%	11.58%
Khaperkheda Unit 5	6.00%	5.85%
Bhusawal Units 4-5	6.00%	6.36%
Koradi Units 8-10	6.00%	7.34%
Chandrapur Units 8-9	6.00%	5.51%
Parli Unit 8	9.14%	13.59%

- 7.2.4.2 Khaperkheda Unit 5 and Chandrapur Units 8-9 achieved normative auxiliary consumption. The Petitioner submit that the excess auxiliary consumption beyond the norm was due to measuring error at MSETCL energy meters in switch yard, partial loading caused by low demand, as well as backing down operations and lower PLF, aging factor of units, and calculation error while setting norms for Chandrapur.
- 7.2.4.3 The Petitioner respectfully submits before the Hon'ble Commission to consider and approve the Auxiliary consumption norms as recommended in the CPRI Energy Audit reports for Chandrapur Units 3-7, Paras Units 3-4, Parli Units 6,7 & 8, Khaperkheda Units 1 to 4. The normative Auxiliary energy consumption (AEC) approved by the Hon'ble Commission for aforementioned stations is lower than the actual AEC. The Petitioner most respectfully submits that the norm of AEC

approved by the Hon'ble Commission is lower and it is not achievable, while the actual AEC of the station is comparable with the AEC recommended in the CPRI report. In light of this, the Petitioner humbly requests the Hon'ble Commission to consider these recommendations in its deliberations and allow revenue loss/(gain) due to higher energy consumption accordingly under True up.

7.2.4.4 **Uran Open Cycle:** From 07.09.2022 to 20.11.2022, all gas turbine units at GTPS Uran operated in open cycle mode only. Both steam turbines were shut down during this period, causing the standby consumption of the steam turbines' auxiliaries to be included in the total station auxiliary power consumption. This led to an increase in open cycle auxiliary power consumption

7.2.4.5 **Uran Combined Cycle:** Due to limited gas availability, the steam turbines operated in a 1GT-1ST configuration for 6,058 out of a total of 7,536 service hours. The auxiliary consumption on the steam turbine side remains nearly the same whether operating with one or two gas turbines, but generation is reduced by 50% in single GT operations, resulting in higher auxiliary power consumption.

7.2.4.6 The detail reasoning for the station wise higher Auxiliary consumption than the norm approved by the Hon'ble Commission is provided in Annexure - 14.

7.2.5 Transit and handling loss

7.2.5.1 The MERC (MYT) Regulations, 2019 specify the normative transit and handling loss of 0.80% for non-pit head generating stations for domestic coal. The Petitioner has considered the normative transit and handling loss of 0.8% for final true-up of FY 2022-23.

7.2.5.2 The actual transit and handling loss achieved during FY 2022-23 is as shown in the table below:

Table 36: Actual Vs Normative transit and handling loss for 2022-23 (%)

Particulars	Norm	Actual
Bhusawal Unit 3	0.80%	0.87%
Chandrapur Units 3 -7	0.80%	0.48%
Khaperkheda Units 1-4	0.80%	1.86%
Koradi Unit 6	0.80%	0.00%
Nashik Units 3-5	0.80%	0.77%
Paras Units 3-4	0.80%	0.80%
Parli Units 6-7	0.80%	0.49%
Khaperkheda Unit 5	0.80%	1.86%
Bhusawal Units 4-5	0.80%	0.80%
Koradi Units 8-10	0.80%	0.31%
Chandrapur Units 8-9	0.80%	0.48%
Parli Unit 8	0.80%	0.49%

7.2.5.3 It can be seen that the major problem with high transit loss is with Khaperkheda TPS and MSPGCL has taken up the matter to control the same. However, if overall MPSGCL figures are compared, then transit loss has been contained within the limit.

7.2.6 Net Generation

7.2.6.1 Net generation as approved by Hon'ble Commission in MTR order and generation net off normative auxiliary consumption (revised normative) and actual net generation during FY 2022-23 is given in the table below.

Table 37: Actual Vs Approved Net Generation for 2022-23 (MU)

Particulars	Revised normative	Actual net generation (MU)
Bhusawal Unit 3	637.10	611.32
Chandrapur Units 3 -7	7,627.93	7,480.80
Khaperkheda Units 1-4	3,893.84	3,848.77
Koradi Unit 6	1,176.71	1,170.49
Nashik Units 3-5	2,256.29	2,209.27
Uran	1,476.30	1,448.95
Paras Units 3-4	2,755.04	2,732.70
Parli Units 6-7	2,508.37	2,471.09
Khaperkheda Unit 5	3,232.38	3,237.41
Bhusawal Units 4-5	5,752.32	5,730.25
Koradi Units 8-10	10,441.17	10,292.70
Chandrapur Units 8-9	6,268.43	6,300.85
Parli Unit 8	1,029.56	979.08
Total	49,055.45	48,513.67

7.3 Expense side True-up

7.3.1 Background

7.3.1.1 The Petitioner seeks True-up of expenses for FY 2022-23 as per the audited accounts or norms as applicable for various heads of expenditure as per the MERC (MYT) Regulations 2019. For the purpose of Truing up, MSPGCL has worked out the expenses that may be allowed on a normative basis. Final entitlement is arrived after considering sharing of gain and losses as per regulation 11 of MERC (MYT) Regulations 2019. However, the Petitioner requests the Hon'ble Commission to provide relaxation on the availability to the extent due to shortage of coal and allow recovery of the fixed charges. The detailed rationale for True up of the expenses for FY 2022-23 is provided in the subsequent paragraphs.

7.3.2 Variation of GCV "As Billed" and GCV "As Received" basis

7.3.2.1 It is submitted that GCV is determined on 'Air Dried Basis (ADB)' by burning coal sample in the bomb calorimeter. As per the current practice, Coal India Ltd (CIL) and Coal Companies convert GCV (ADB) to 'Equilibrated Moisture Basis (EM)' for the purpose of coal billing. The GCV (EM) is used to determine the Grade of Coal. Currently coal testing agencies (CIMFR) and its designated agencies are undertaking the sampling and testing of coal at loading as well as unloading ends and calculating the GCV on EM basis. However, equilibrated moisture is calculated on standard conditions (60% relative Humidity and 40-degree C temperature) and does not contain surface moisture. The surface moisture is calculated as Total moisture (TM) – Equilibrated Moisture (EM). At power station end (i.e., unloading end) also the GCV is measured at equilibrated

conditions to compare the Grade of Coal at loading end. However, to understand the usable heat from the received coal, i.e., GCV on “As received” basis, it is required to convert the GCV on equilibrated to basis to GCV “As Received” basis, formula for conversion is as under:

$$\text{GCV (ARB)} = \text{GCV (EM) basis} \times (100 - \text{TM}) / (100 - \text{EM})$$

- 7.3.2.2 As per actual coal received during FY 2022-23, the variation in GCV “As billed” and “As Received” of raw coal is tabulated as under:

Table 38: Variation in loading end and unloading end GCV of Raw coal for FY 2022-23

Stations	As billed GCV	As Received GCV	Variation
	kCal/kg	kCal/kg	kCal/kg
	a	b	c=a-b
Bhusawal Unit 3	4,109	3,188	920
Chandrapur Units 3 -7	4,001	3,106	894
Khaperkheda Units 1-4	3,907	3,126	781
Koradi Unit 6	3,787	2,680	1,107
Nashik Units 3-5	4,051	2,835	1,216
Paras Units 3-4	4,136	3,217	919
Parli Units 6-7	3,947	3,282	665
Khaperkheda Unit 5	3,921	3,132	789
Bhusawal Units 4-5	4,171	3,214	957
Koradi Units 8-10	3,854	2,798	1,057
Chandrapur Units 8-9	4,044	3,131	913
Parli Unit 8	3,947	3,282	665
Wtd Avg.	4,020	3,123	897

- 7.3.2.3 It is evident from the above table that actual GCV variation in loading end (GCV ‘As billed’) and unloading end (GCV ‘As Received’) is higher than the total variation allowed (600 kcal/kg) by the Hon’ble Commission as approved in MTR Order (Case No. 227 of 2022) in addition to relaxation of 300 kcal/kg allowed as per MERC (MYT) Regulations 2019 for FY 2022-23. The said variation was due to various factors which were beyond the control of MSPGCL. This is also evident from the fact that this Hon’ble Commission has accepted the fact that the deviation was due to factors beyond MSPGCL’s control, while finalising MERC MYT Regulations, 2024.

- 7.3.2.4 The Petitioner has signed agreement with M/s CIMFR for the work of coal analysis at loading points and at unloading end. It is also submitted that there are differences in coal sampling methods (i.e., that samples are limited in nature at wagon loading v. more exhaustive samples at unloading end), due to differences in methods instructed by coal supplier and MSPGCL.

7.3.3 Current status of quality control of coal and GCV Loss

- 7.3.3.1 The observed grade slippage between the declared grade of coal and the actual grade received at the generating station's (unloading end) has put the Petitioner in grave financial loss. Further, determination of requisite coal quantity for electricity generation is contingent upon GCV of coal likely to be utilized for the

electricity generation. However, considering the variation in GCV “As Billed” and GCV “As Received”, subject to permissible limit approved by the Hon’ble Commission would lead to incomplete recovery of the entire fuel cost associated with the utilized coal quantity corresponding to the GCV of coal received at generating station for the Petitioner.

7.3.3.2 Based on coal data for the period from April 2022 to March 2023 the difference between the Gross Calorific Value (GCV) at the loading end (Billed GCV) and the GCV received at the generating station's unloading end ranges from 665 kcal/kg to 1216 kcal/kg which works out to weighted average GCV loss of ~ 897 kcal/kg at MSPGCL’s level.

7.3.3.3 It is pertinent to note that variation in GCV at loading end (As billed) and unloading end at generating station (As Received) includes grade slippage and moisture loss. In light of this, it is important to consider the actual variation in GCV “As Billed” and GCV “As Received” for the calculation of ECR in order to recover the appropriate fuel cost.

7.3.4 Petitioner’s submission regarding GCV of coal

7.3.4.1 The Petitioner respectfully submits that, as demonstrated in the preceding submissions regarding the efforts undertaken, every measure has been diligently applied to minimize the variations in the GCV of coal between the loading and unloading points. It is crucial to emphasize that the Petitioner does not handle the coal until the point of unloading, thus the Petitioner has its limited control over any potential variations prior to that stage. Still, the substantial difference in GCV between the loading and unloading ends, even on an equilibrated basis, is consequently imposed on the Petitioner without any fault on its part. While the Petitioner is committed to adopt measures to mitigate such variations, imposing the entire burden of variations exceeding 600 kCal/kg would result in a significant financial impact on the Petitioner’s financial position for no fault of the Petitioner.

7.3.4.2 The Petitioner most respectfully submits that despite significant efforts undertaken by the Petitioner to reduce or control the GCV loss between loading and unloading end, actual GCV loss is in the range of 665 kcal/kg to 1216 kcal/kg during FY 2022-23 for MSPGCL’s thermal generating stations.

7.3.4.3 Further, in Review Order (Case No. 132 of 2023) dated 01.02.2024, while dealing with the issue of GCV loss, the Hon’ble Commission has noted the submission of the Petitioner and under the provisions of Power to Relax of MERC (MYT) Regulations 2019 relaxed the loss in GCV up to 650 kcal/kg for FY 2023-24 and FY 2024-25.

7.3.4.4 In light of this, the Petitioner most respectfully submits that the Petitioner has been submitting its practical difficulties related to GCV loss from the consulting stage of draft MERC (MYT) Regulations 2019 and subsequently through the MYT and MTR Petitions based on the actual GCV loss during the respective years. Hence, the permissible limit of GCV loss approved by the Hon’ble Commission as per MERC (MYT) Regulations 2019 and additionally through various Order is

not sufficient to provide the appropriate recovery of the fuel cost of the Petitioner.

7.3.4.5 The Petitioner most respectfully submits that various State Electricity Regulatory Commissions (SERCs), as well as the Central Electricity Regulatory Commission (CERC), has been allowing the GCV to be considered on “As received” basis for the calculation of ECR. As a result, the actual GCV loss has been permitted to generators regulated under the jurisdiction of CERC and other SERCs.

7.3.4.6 Based on the actual average GCV loss at MSPGCL's stations and the efforts made by MSPGCL regarding the sampling methodology, the Hon'ble Commission, in the MERC (MYT) Regulations 2024, has approved a GCV loss of 750 kcal/kg for the MYT Control Period from FY 2025-26 to FY 2029-30. In view of this, the Petitioner respectfully submits that by allowing a GCV loss of 750 kcal/kg, the Hon'ble Commission has acknowledged that the previously approved GCV loss of 650 kcal/kg is insufficient to account for the actual GCV loss. Relevant excerpt from the Statement of Reasons (SOR) of the MERC MYT Regulations, 2024, is provided below:

“5.14.3 Analysis and Commission's Decision

The Commission had proposed to consider the GCV as billed, for the purpose of computation of Energy Charges, as discussed in the Explanatory Memorandum. The Commission in MYT Regulations 2019 had allowed maximum loss of 300 kcal/kg which was subsequently relaxed by the Commission vide MTR review Order in Case No. 132 of 2023, dated February 01, 2024 and allowed GCV loss of 650 kcal/kg for FY 24 and FY 25, as this was the target specified for the 1st year of the 4th Control Period. While allowing the additional GCV loss of 650 KCal/kg the Commission has noted that,

“However, the Commission also directs MSPGCL to take all the necessary and adequate steps to minimize the grade slippage and submit the efforts taken by MSPGCL during the MYT Petition for considering the relaxed norms approved in this Order on its merit. In case the actual washed coal utilization is lower than the washed coal utilization as per fuel utilization plan submitted as part of MTR Petition, the Commission will take an appropriate view regarding additional GCV loss allowed at the time of truing up.”

The data submitted by the MSPGCL, shows that, the actual Average GCV loss of Mahagenco stations is 760 Kcal/kg. In view of relaxation provided by the Commission in review Order, efforts demonstrated by MSPGCL for sampling methodology and actual average GCV losses, the Commission is inclined to revise the allowable GCV loss from 650 Kcal/kg proposed in the draft MYT Regulations to 750 Kcal/kg in the final MYT Regulations 2024.”

7.3.4.7 It is submitted that actual average GCV loss for raw coal at MSPGCL stations was never in the range of 760 kcal/kg as noted by the Hon'ble Commission in SoR of MERC (MYT) Regulations, 2024. It is also observed that the Hon'ble Commission has approved GCV loss of 750 kcal/kg considering actual average GCV loss for MSPGCL's stations. In view of this, it is submitted that the actual average GCV

loss for MSPGCL stations for FY 2022-23 is 897 kcal/kg and it is ranging from 665 kcal/kg to 1216 kcal/kg for various stations. Hence, it is important to consider the GCV loss at actuals in order to provide the recovery of the cost of electricity in a reasonable manner as provided in Section 61 (d) of Electricity Act 2003. It is submitted that Hon'ble Supreme Court has appreciated CEA's views that GCV is to be considered on 'as fired' basis in MSEDCL v. Adani Power Maharashtra Ltd. [(2023) 7 SCC 401]:

"111. Insofar as GCV is concerned, CERC in GMR Warora Energy [GMR Warora Energy Ltd. v. Maharashtra State Electricity Distribution Co. Ltd., 2019 SCC OnLine CERC 297] has specifically rejected the contention of MSEDCL that GCV should be taken at the mid value of GCV band which should be applied on GCV measured on "as billed" basis. CERC held that, on account of the grade slippage of the coal supplied by CIL, it would not be appropriate to consider GCV on "as billed" basis. It has been held that in the 2014 Tariff Regulations of the Commission, the measurement of GCV has been specified as on "as received" basis. Therefore, it will be appropriate if GCV on "as received" basis is considered for computation of compensation for the change in law. This finding of CERC is affirmed by the learned APTEL.

112. The learned Aptel in Adani Power Maharashtra [Adani Power Maharashtra Ltd. v. Maharashtra State Electricity Distribution Co. Ltd., 2020 SCC OnLine APTEL 76] has also considered the issue as to whether the reference GCV of domestic coal supplied by CIL for computing the change in law compensation should be "the middle value of GCV range of assured coal grade in LoA/FSA/MoU". The learned Aptel observed that it was a fact that there is no guidance in the PPAs or in the bidding Guidelines as to the reference GCV that should be applied in case of the change in law claims in Case 1 bid projects where SHR or GCV is not a bid parameter. It, however, held that the overarching principle for change in law compensation was that the generating company should not be left with in a worse economic position. It held that GCV "as received" should be the appropriate basis to assess the quantum of shortfall in domestic coal and calculate the change in law compensation accordingly.

113. It is also relevant to note that the Comptroller and Auditor General of India ("C&AG" for short), in its Performance Audit Report on "Fuel Management of Coal Based Power Stations of NTPC Limited" submitted to MoP, had observed that the "quality assessment of coal has inherent as well as manmade infirmities due to heterogeneous nature of coal and sampling errors". The C&AG, therefore, recommended to the MoP that there was a need to appropriately review the methods for energy pricing and had requested the MoP to coordinate with CERC in light of the audit findings. The

MoP, therefore, addressed a Communication dated 28-6-2017 to the CEA. In the said communication, the MoP had stated that the NTPC has highlighted the issues of sampling error on account of change of point of sampling for measurement of GCV from “as fired” to “as received” basis as per the 2014 Tariff Regulations, non-homogeneous nature of samples taken from the wagons, loss of GCV from point of “as received” to the point of “as fired”, and difficulty with coal sampling through “Augurs”. It further states that the MoP had also sought views of CERC on the said issue. CERC had, therefore, requested the MoP for consulting CEA in this regard and accordingly the matter was referred to CEA.

114. The CEA in its Communication dated 17-10-2017 stated thus:

“The issue has been examined in CEA. After preliminary discussions with NTPC on the issue on 5-9-2017, CEA has also taken views of other specialist agencies in the field of coal such as CIMFR and CPRI in the meeting held on 21-9-2017.

It is acknowledged that there is a loss of GCV from point of “as received” to the point of “as fired” inside a power plant mainly due to following factors:

(i) Effect of moisture in GCV of coal sample taken from wagon top

As stated by C&AG, there are sampling errors on account of heterogeneous nature of coal. This issue was deliberated in detail with CIMFR and CPRI. Both CIMFR and CPRI acknowledged the difference in wagon top-bottom GCV due to heterogeneous nature of coal, tendency of moisture to settle at the bottom and exposure of top layer to atmosphere.

CEA is of the view that GCV measurement of wagon top coal will give comparatively higher GCV value due to steeling of moisture at the bottom of the wagon and loss of moisture from wagon top during transportation of coal, however, loss in GCV will vary as per seasonal variations.

(ii) Loss in GCV during coal storage inside power plant

CEA is of the view and also substantiated by many national and international papers that there is a loss of GCV in the coal stock where coal is stored inside the power plant, mainly due to oxidation and weathering effect. Further, most of the losses in GCV during long storage of coal takes place in the initial period of storage, mostly due to loss in volatile content.

(iii) Reduction in GCV during handling inside power plant

C&AG in its Performance Audit Report has observed that GCV of coal progressively decreased from “as billed” stage to “as fired” stage.

It is acknowledged that there are minor unavoidable losses inside the power plant in handling the coal starting from unloading point to the point of bunkering. Loss in GCV may occur mainly due to dust suppression measures

used around coal conveyors and transfer points, loss in volatile matter during crushing of the coal, etc.

CEA has also examined the views taken by various State Regulators for considering such loss for the purpose of tariff allowed to generators. However, as the margin would vary from plant to plant, season to season and varying coal characteristics, CEA is of the opinion that a margin of 85-100 kcal/kg for a non-pit head station may be considered as a loss of GCV measured at wagon top till the point of firing of coal in boiler.”

115. Vide Corrigendum dated 18-10-2017, in the last sentence, after the words wagon top, the words “at unloading point” were added.

116. The aforesaid advice was given by the CEA after holding meeting on 21-9-2017 with specialist agencies in the field of coal such as CIMFR and CPRI. It has also examined the views taken by various State Regulators for considering such loss for the purpose of tariff allowed to generators. While considering at what point of time the margin may be considered as a loss of GCV, the CEA considered the views of all the stakeholders. It, thereafter, opined that the loss of GCV should be measured at wagon top till the point of firing of coal in boiler.

117. As already discussed hereinabove, the CEA is an independent body having Members who are experts in various fields related to electricity generation, transmission, finance, etc.

...

120. As already discussed hereinabove, various expert bodies including CERC and the learned Aptel, after taking into consideration various relevant factors, have decided the issue with regard to SHR and GCV. Not only that, but another expert body i.e. CEA has also advised that GCV value has to be taken not only on “as received” but on “as fired” basis.

121. Recently, the Constitution Bench of this Court in Vivek Narayan Sharma (Demonetisation Case-5 J.) v. Union of India [Vivek Narayan Sharma (Demonetisation Case-5 J.) v. Union of India, (2023) 3 SCC 1] has held that the Courts should be slow in interfering with the decisions taken by the experts in the field and unless it is found that the expert bodies have failed to take into consideration the mandatory statutory provisions or the decisions taken are based on extraneous considerations or they are ex facie arbitrary and illegal, it will not be appropriate for this Court to substitute its views with that of the expert bodies.”

- 7.3.4.8 Further, the Petitioner submits that the Hon’ble Commission has acknowledged the GCV loss of 750 kcal/kg for MYT period in MYT Regulations 2024. Therefore, the Petitioner most respectfully submits that the fact of actual GCV loss as admitted by the Hon’ble Commission for MYT period (FY 2025-26 to FY 2029-

30) also remain relevant for period FY 2022-23 to FY 2024-25 for which True Up is being undertaken in this Petition. It is settled law that similar facts must be treated in a similar fashion so as to not be arbitrary/ discriminatory. In view of this, despite that the actual GCV loss for FY 2022-23 is higher than 750 kcal/kg, the Petitioner request the Hon'ble Commission to allow GCV loss at least of 750 kcal/kg for FY 2022-23.

7.3.4.9 Further, the Petitioner submits that the it has filed the Appeal against the Hon'ble Commission's Order in Case No. Case No. 227 of 2022 & 132 of 2023 covering the issue GCV variation between GCV "As Billed" and GCV "As Received" as one of the issues in Appeal. In Appeal No. 501/2023, MSPGCL has raised concerns regarding deviations in the relevant provisions of the MERC MYT Regulations, 2019, as compared to relevant provisions under the tariff regulations of other Electricity Regulatory Commissions. Additionally, the Petitioner has highlighted the inadequacy of the relaxations allowed by the Hon'ble Commission in view of the actual GCV gaps observed. It is noted that the Hon'ble APTEL has not stayed the MERC order dated February 1, 2024.

7.3.4.10 Despite the Petitioner's request (in foregoing para) to the Hon'ble Commission to permit a GCV variation of at least 750 kcal/kg between the "As Billed" and "As Received" GCV, in view of the sub-judice matter before the Hon'ble APTEL, the Petitioner has calculated its claim for normative fuel costs for FY 2022-23 based on a GCV gap of 600 kcal/kg approved by the Hon'ble Commission in its Order. Additionally, MSPGCL respectfully seeks appropriate relaxations for FY 2022-23 by invoking the provisions of the MERC MYT Regulations, 2019, under the clauses for "Power to Relax" and "Power to Remove Difficulties." The Petitioner requests the Hon'ble Commission to kindly consider these submissions and grant relief as deemed appropriate.

7.3.4.11 The Petitioner most respectfully submits that, in the event the Hon'ble Commission is pleased to consider and allow the GCV variation up to 750 kCal/kg, the primary cause of the Appeal at APTEL will be resolved. Hence, the Petitioner shall, with utmost respect, withdraw its appeal on this matter, which is currently pending before the Hon'ble APTEL.

7.3.5 Fuel Expenses

7.3.5.1 The Petitioner submits that the actual fuel expense as per audited accounts for FY 2022-23 is Rs. 22,698.40 Crore. The Hon'ble Commission has approved fuel expenses Rs. 22,108.99 Crore for FY 2022-23 in MTR Order.

7.3.5.2 As the fuel prices and GCV are uncontrollable factors, the Petitioner has computed revised normative fuel expenses as per actual gross generation in line with normative operational parameters.

7.3.5.3 The Hon'ble Commission approved a GCV loss of 600 kCal/kg in the provisional true-up for FY 2022-23. However, in the Review Order (Case No. 132 of 2023), the Hon'ble Commission considered the submissions of MSPGCL and granted a total relaxation in GCV loss of 650 kCal/kg for FY 2023-24 and FY 2024-25.

Further, for the MYT period FY 2025-26 to FY 2029-30, the Hon'ble Commission has allowed GCV loss of 750 kCal/kg.

7.3.5.4 Therefore, based on the submission of the Petitioner in foregoing section of this Petition, the Petitioner respectfully submits that, given the higher GCV loss (i.e., 750 kCal/kg) has been accepted for the subsequent years, it would seem rather restrictive to apply a loss of 600 kCal/kg for FY 2022-23. In view of this, the Petitioner humbly requests that this matter be reconsidered in light of the accepted standards for the later years.

7.3.5.5 However, in view of the sub-judice matter before the Hon'ble APTEL regarding issue of GCV gap, the Petitioner has calculated its claim for normative fuel costs for FY 2022-23 based on a GCV gap of 600 kcal/kg approved by the Hon'ble Commission in Order.

7.3.5.6 The table below provides the comparison of the fuel expense approved in MTR Order, revised normative (to be approved) and actual fuel expenses:

Table 39: Comparison of Actual and Approved Energy Charges (Rs. crore) for FY 2022-23

Station	2022-23		
	MTR Order	Revised Normative	Actual
Bhusawal Unit 3	469.50	307.92	432.94
Chandrapur Units 3 -7	4,353.68	3,319.93	3,858.28
Khaperkheda Units 1-4	1,834.78	1,465.53	1,779.76
Koradi Unit 6	397.45	364.02	457.50
Nashik Units 3-5	1,625.81	1,114.64	1,417.05
Uran	884.07	884.59	945.24
Paras Units 3-4	956.16	965.13	1,087.78
Parli Units 6-7	1,405.43	1,209.72	1,309.85
Khaperkheda Unit 5	1,283.02	1,102.94	1,330.56
Bhusawal Units 4-5	2,291.47	2,244.38	2,861.44
Koradi Units 8-10	3,602.93	3,281.88	4,097.44
Chandrapur Units 8-9	2,419.61	2,360.29	2,576.93
Parli Unit 8	585.07	492.96	543.64
Total	22,108.99	19,113.91	22,698.40

7.3.5.7 The difference in the approved and actual fuel expenses is on account of variation in gross generation, price and GCV of fuels and actual technical performance. The Petitioner has worked out the revised normative fuel cost based on the actual gross generation. Final entitlement of fuel cost is worked out after sharing of gain and losses.

7.3.5.8 The Petitioner respectfully submits that the aforementioned normative fuel cost has been calculated based on an allowable GCV variation of 600 kCal/kg.

7.3.5.9 The Petitioner further submits that, considering the GCV loss of 750 kCal/kg between GCV "As Billed" and GCV "As Received", the normative fuel cost worked out to Rs. 19617.65 Crore, the station wise working of the same is as tabulated below:

Station	2022-23		
	MTR Order	Revised Normative	Actual
Bhusawal Unit 3	469.50	319.04	432.94
Chandrapur Units 3 -7	4,353.68	3,455.05	3,858.28
Khaperkheda Units 1-4	1,834.78	1,519.66	1,779.76
Koradi Unit 6	397.45	370.94	457.50
Nashik Units 3-5	1,625.81	1,159.62	1,417.05
Uran	884.07	884.59	945.24
Paras Units 3-4	956.16	1,008.46	1,087.78
Parli Units 6-7	1,405.43	1,233.75	1,309.85
Khaperkheda Unit 5	1,283.02	1,126.08	1,330.56
Bhusawal Units 4-5	2,291.47	2,310.09	2,861.44
Koradi Units 8-10	3,602.93	3,288.61	4,097.44
Chandrapur Units 8-9	2,419.61	2,438.93	2,576.93
Parli Unit 8	585.07	502.83	543.64
Total	22,108.99	19,617.65	22,698.40

7.3.5.10 In view of above, the Petitioner respectfully requests the Hon'ble Commission to grant appropriate relaxations in GCV variation in GCV "As Billed" and "As Received" by invoking the provisions under the MERC MYT Regulations, 2019, related to "Power to Relax" and "Power to Remove Difficulties. It is requested that the Hon'ble Commission may consider the submissions and consider the same as deemed appropriate and accordingly allow sharing of gains and losses on fuel cost.

7.3.6 Capitalization

7.3.6.1 MSPGCL submits that it has capitalized Rs. 752.46 Crore during FY 2022-23 as against the approved capitalization of Rs. 1118.70 Crore. The station/ unit wise details of approved and actual capitalization is provided below:

Table 40: Details of Additional Capitalization in FY 2022-23 (Rs. Crore)

Station	Approved	Actual	Breakup of actual capitalization				Non-DPR %
			DPR	Non DPR	Discharge of UDL	Total	
Bhusawal Unit 3	-	0.26	-	0.26		0.26	0%
Chandrapur Units 3 -7	199.17	117.32	97.77	19.55		117.32	20%
Khaperkheda Units 1-4	45.77	43.16	36.01	7.16		43.16	20%
Koradi Unit 6	48.27	41.85	40.21	1.64		41.85	4%
Nashik Units 3-5	6.19	6.92	6.09	0.83		6.92	14%
Uran	34.55	17.40	14.75	2.65		17.40	18%
Paras Units 3-4	82.56	78.58	70.49	8.08		78.58	11%
Parli Units 6-7	37.57	34.32	28.60	5.72		34.32	20%
Khaperkheda Unit 5	22.10	152.08	141.46	10.62		152.08	8%
Bhusawal Units 4-5	18.87	13.92	13.64	0.28		13.92	2%
Koradi Units 8-10	306.92	113.20	93.52	0.17	19.51	113.20	0%
Chandrapur Units 8-9	158.42	94.96	79.67	1.87	13.43	94.96	2%
Parli Unit 8	103.66	12.81	12.40	0.40	-	12.81	3%
SHP	12.34	13.16	8.91	4.25		13.16	48%
Bhira	1.91	-	-	-		-	0%
Koyna	37.95	10.50	7.93	2.57		10.50	32%
Tillari	2.45	2.00	-	2.00		2.00	0%
Total	1,118.70	752.46	651.47	68.06	32.94	752.46	10%

7.3.6.2 The Petitioner submits that total additional capitalisation of Rs. 854.39 Crore includes capitalisation due to release of undischarged liabilities of Rs.121.44 Crore and Rs.13.43 Crore of Koradi units 8-10 and Chandrapur unit 8-9 respectively. Further, the Petitioner submits the following justification for variation in actual capitalisation vis-à-vis capitalisation approved for FY 2022-23,

- During FY 2022-23, Annual/Capital Overhauls of 14 nos. of thermal units, (capacity-5370 MW) of MSPGCL were planned. However, in order to meet the Maharashtra's increasing power demand throughout the year, Annual/Capital Overhauls of 5 nos. of thermal units, (capacity -1630 MW) were not consented by MSEDCL and were deferred during FY 2022-23. Total 30% of Overhaul of thermal units was deferred in FY 2022-23. Hence execution & implementation of the approved DPR schemes which was scheduled during the overhaul of the units, which were deferred, could not be carried out.
- Some of the capex schemes have also experienced procurement process delays like refloating of tender's multiple times due to issues like poor response from vendors or single bidding.
- Also, the delivery period of some of the Capex items was around 6 to 9 months from the dispatch of PO and it was anticipated that the schemes would be implemented in FY 22-23. However, some of the materials were received during the end of FY 22-23. This has resulted in the spillover of the capitalization in the next FY 23-24. This has also added to the reduction in actual capitalization during the FY 22-23. Also, there were some instances where delay in the production and delivery of critical components was observed. This has also affected the timely procurement of the required equipment.
- Further, during the execution of the capital schemes, there were instances of cost savings due to more favorable procurement terms or more efficient project execution. These savings resulted in the final capitalization being lower than initially anticipated.

7.3.6.3 The Petitioner submits that the progress of capitalisation has been close to the approved limits in Khaperkheda Unit 1-4, Paras unit 3-4, Parli unit 6-7. Regarding Khaperkheda Unit 5, assets towards Pipe conveyor system for transporting coal is capitalised for Rs.124.51 Crore during FY 2022-23. The overall actual capitalization in FY 2022-23, is lower than that approved by the Commission. It may be appreciated that the implementation of approved capital expenditure requires significant lead time in preparation of design, bid process management, negotiations, outage for implementation, external effects like COVID-19 aftermath and ensuring that the cost submitted by the bidders is within reasonable range. At times, this process takes more than the envisaged time leading to spill over of schemes to the subsequent years. MSPGCL endeavours to ensure that capitalisation of schemes falls within the envisaged timelines going forward.

7.3.6.4 In MTR petition, the Petitioner had submitted additional capitalisation of Rs.1169.38 Crore for provisional true up of FY 2022-23. In response to this, the

Hon'ble Commission has approved capitalisation of Rs.1118.70 Crore for FY 2022-23 by adopting following approach in MTR Order:

- a) **DPR schemes (above Rs. 10 Crore each):** Entire capitalisation is approved for all DPR schemes capitalised in the year in respect of which in-principle approval has been accorded. In case of cost over-run without appropriate justification, the capital cost is capped at approved capital cost as per in-principle approval. However, in case of the schemes executed through competitive bidding, the cost overrun with respect to approved cost has been allowed.
- b) **Non-DPR schemes (less than Rs. 10 Crore each):** The capitalisation of the non-DPR schemes has been considered up to 20% of the cost of the capitalised DPR schemes.

- 7.3.6.5 In case of cost-over run for a scheme beyond the cost approved at the time of "In principle" approval, the detailed scheme wise amount of cost overrun along with reasons are provided as per attached **Annexure - 15**.
- 7.3.6.6 The amount of capitalisation towards non-DPR schemes are within the approved range of 20% of capitalisation of DPR schemes for almost all stations, except in case of SHP and Koyna hydro station.
- 7.3.6.7 As per the Regulation 74.2 of MERC MYT Regulation, 2019, the projects of value exceeding Rs. 10 Crore are only qualified under the Capex schemes. However, in case of Hydro projects, scheme wise capex value has typically remained within the ceiling limit (Rs. 10 Crore). As a result, capex of Hydro stations is considered under Non-DPR scheme. Hence, the proportion of Non-DPR over DPR scheme is higher than the 20% limit stipulated by the Hon'ble Commission.
- 7.3.6.8 Due to above reasons, non-DPR capex of SHP and Koyna is higher than 20% observed for FY 2022-23.
- 7.3.6.9 In view of this, the Petitioner request the Hon'ble Commission to allow the actual capitalisation for Hydro stations without restricting to 20% ceiling for Non-DPR schemes. Further, in case of Chandrapur Units 3-7 and Khaperkheda Units 1-4, capitalisation through non-DPR scheme is marginally higher than ceiling of 20%. Petitioner request the Hon'ble Commission to approve marginal increase at Chandrapur Unit 3-7 and Khaperkheda Unit 1-4 as well as Hydro CAPEX.
- 7.3.6.10 In light of the above, the Petitioner request the Hon'ble Commission to approve the capitalisation as tabulated above for FY 2022-23.

7.3.7 Operations and Maintenance Expenses

- 7.3.7.1 The Hon'ble Commission in MTR Order (Case No. 227 of 2022) dated 31.03.2023 had approved O&M expenses for old Stations for FY 2022-23 based on historical average and escalated as per Regulation 47.1 of MERC (MYT) Regulations, 2019.
- 7.3.7.2 For the new units commissioned after 2005, the Hon'ble Commission had approved the O&M expenses, considering the normative level in Rs. Lakh/MW specified in Regulation 47.2 of MERC (MYT) Regulations, 2019. While arriving normative O&M expense for provisional true up of FY 2022-23 in MTR Order,

the Hon'ble Commission has considered escalation rate of 3.94% as per actual escalation rate for FY 2021-22. For FY 2022-23, Revised normative O&M expense are worked out considering actual escalation rate of 4.88% calculated for FY 2022-23 as per WPI/CPI indices. The working of the same is provided below:

Table 41: Working of escalation rate for revised normative O&M expense for FY 2022-23

Year	WPI	Percentage Annual Change in WPI	CPI	Percentage Annual Change in CPI
FY 2017-18	114.88		284.42	
FY 2018-19	119.79	4.28%	299.92	5.45%
FY 2019-20	121.80	1.68%	322.50	7.53%
FY 2020-21	123.38	1.29%	338.69	5.02%
FY 2021-22	139.41	13.00%	356.06	5.13%
FY 2022-23	152.53	9.41%	377.62	6.05%
Average from FY 2017-18 to FY 2022-23		5.93%		5.84%
Weights		50%		50%
Escalation Factor			5.88%	
Efficiency Factor			1%	
Escalation Factor Net of Efficiency Factor			4.88%	

- 7.3.7.3 Regulation 49.1 (c) of MERC (MYT) Regulations 2019 provides that O&M expense incurred by Hydro generating stations on its housing colonies and related expenses, including medical and other facilities and on their operating staff shall be allowed separately. The relevant excerpt of the said regulation is reproduced as below:

"49 Operation and Maintenance Expenses for Hydro Generating Stations

49.1 For Existing Stations:

.....

c) The Operation and Maintenance expenses incurred by the Generating Company on its housing colonies and related expenses, including medical and other facilities, and on their operating staff shall be excluded from (a) and (b) above and allowed separately, subject to prudence check."

- 7.3.7.4 In view of aforesaid regulations, the O&M expense incurred by Hydro generating stations on its housing colonies and related expenses are summarised as under:

Table 42: O&M expense on housing colonies related expenses of Hydro stations for FY 2022-23 (Rs Crore)

Sr. No.	Station	Other expenses
1	Koyna	1.43
2	Bhira	0.06
3	Tillari	-
4	SHP	1.22
	Total	2.70

- 7.3.7.5 The aforementioned O&M expenses of Hydro generating stations related to housing colonies are claimed at actuals under the head of other expenses. The

comparison of revised normative O & M expenses worked out based on escalation rate along with water charges and other charges and actual expenses for FY 2022-23 is provided in the table below:

Table 43: Break-up of O & M expenses for FY 2022-23 (Rs Crore)

Station/Unit	Approved in MTR Order					Revised Normative			
	Normative O&M expenses	Pay Revision	Water charges	Other Charges	Total O&M expenses	O&M expenses incl pay revision	Actual Water charges	Actual Other Charges	Total O&M expenses
Bhusawal Unit 3	96.69	7.61	11.26	3.74	119.30	105.25	13.85	5.37	124.47
Chandrapur Units 3 -7	595.00	32.03	10.97	46.50	684.50	632.74	16.41	56.68	705.83
Khaperkheda Units 1-4	278.26	16.66	60.09	28.92	383.94	297.61	85.99	28.29	411.90
Koradi Unit 6	176.21	12.09	38.73	13.40	240.42	130.74	35.58	13.80	180.11
Nashik Units 3-5	272.98	18.55	13.58	28.66	333.76	294.18	29.09	27.74	351.01
Uran	91.26	6.67	1.12	0.14	99.19	98.82	1.07	0.07	99.96
Paras Units 3-4	149.65	10.23	4.28	17.44	181.59	159.97	6.55	16.16	182.68
Parli Units 6-7	149.65	12.47	13.62	8.97	184.71	162.23	15.28	12.39	189.90
Khaperkheda Unit 5	99.50	6.25	35.86	9.18	150.79	105.81	5.60	16.84	128.25
Bhusawal Units 4-5	199.00	15.70	3.14	31.45	249.30	214.84	9.19	35.12	259.16
Koradi Units 8-10	318.58	21.56	81.80	29.73	451.67	466.66	86.95	42.31	595.92
Chandrapur Units 8-9	199.00	12.06	5.71	53.84	270.61	211.17	8.42	24.59	244.19
Parli Unit 8	74.83	5.28	8.45	5.89	94.45	80.15	8.73	14.27	103.16
SHP	218.00	23.84	-	0.31	242.15	131.40	-	0.95	132.34
Bhira						6.64	-	-	6.64
Koyna						92.16	-	0.47	92.62
Tillari						13.85	-	-	13.85
Total	2,918.61	200.98	288.61	278.17	3,686.38	3,204.21	322.72	295.06	3,821.98

Table 44: Comparison of Normative in MTR Order and Revised normative v/s actual O & M expenses for FY 2022-23 (Rs Crore)

Station/Unit	Approved in MTR Order	Revised Normative	Actual				
	Total O&M expenses	Total O&M expenses	O&M expenses	pay revision	Water charges	Other Charges	Total O&M expenses
Bhusawal Unit 3	119.30	124.47	117.63	8.01	13.85	5.37	144.86
Chandrapur Units 3 -7	684.50	705.83	679.15	33.73	16.41	56.68	785.98
Khaperkheda Units 1-4	383.94	411.90	321.13	17.55	85.99	28.29	452.97
Koradi Unit 6	240.42	180.11	151.07	12.73	35.58	13.80	213.16
Nashik Units 3-5	333.76	351.01	208.90	19.53	29.09	27.74	285.27
Uran	99.19	99.96	98.13	7.02	1.07	0.07	106.29
Paras Units 3-4	181.59	182.68	205.44	10.77	6.55	16.16	238.91
Parli Units 6-7	184.71	189.90	218.39	13.13	15.28	12.39	259.19
Khaperkheda Unit 5	150.79	128.25	152.41	6.58	5.60	16.84	181.43
Bhusawal Units 4-5	249.30	259.16	241.88	16.53	9.19	35.12	302.73
Koradi Units 8-10	451.67	595.92	424.85	22.70	86.95	42.31	576.81
Chandrapur Units 8-9	270.61	244.19	327.32	12.70	8.42	24.59	373.04
Parli Unit 8	94.45	103.16	95.46	5.56	8.73	14.27	124.03
SHP	242.15	132.34	110.84	13.52	0.00	0.95	125.30
Bhira		6.64	6.01	0.68	0.00	0.00	6.70
Koyna		92.62	108.38	9.48	0.00	0.47	118.32
Tillari		13.85	11.79	1.42	0.00	0.00	13.22
Total	3686.38	3821.98	3478.79	211.65	322.72	295.06	4308.21

#Actual other charges approved under O&M are claimed in above table. However, in formats the same is separately shown under the head of Other charges in Form F10

7.3.7.6 With respect to the variation in O & M expenses, the Petitioner submits as follows:

- The Petitioner has worked out revised normative expenses for FY 2022-23 with revised escalation rate as per provisions of Regulation 47.1 (c) of MERC (MYT) Regulations 2019.

-
- The escalation factor considered by the Hon'ble Commission has been revised based on CPI and WPI indices numbers for FY 2022-23.
 - The Hon'ble Commission has approved normative O&M expense based on the historical average O&M expenses with escalation as per norms provided in the MERC (MYT) Regulations 2019. Further, impact of pay revision has been approved separately for FY 2022-23 based on the actual pay revision amount for FY 2021-22 with escalation rate calculated for FY 2021-22 based on WPI/CPI indices. The Petitioner submits that actual O&M expenses for FY 2022-23 shown in above table are including the impact of pay revision for FY 2022-23. In view of this, it is submitted that sharing of O&M expenses has worked out comparing the revised normative O&M expense and impact of pay revision approved for FY 2022-23 vis-à-vis actual O&M expenses. (Other Coal related fixed charges for FY 2022-23 is attached as Annexure - 16)
 - It appears that the normative O&M expenses for Koradi Unit 6, approved by the Hon'ble Commission in the MTR Order from FY 2022-23 onwards, were based on the operation of two units (Units 6 and 7). However, since Unit 7 has been retired and only Unit 6 remains operational, the Petitioner has considered the normative O&M expenses for Koradi Unit 6 as two-thirds of the amount approved by the Hon'ble Commission for FY 2021-22 in the MTR Order, accounting for the common auxiliaries that cannot be dismantled and accordingly calculated the revised normative O&M expenses for Koradi Unit 6 for FY 2022-23.
 - The Petitioner respectfully submits that, the following are the reasons for raising O & M claim at 2/3rd of O & M for Units # 6 & 7 combined:
 - i. Under Stage III of the Koradi TPS, three units—Unit #5 with a capacity of 200 MW and Units #6 and #7 with capacities of 210 MW each—were commissioned between 1978 and 1983. These units, based on LMW technology, shared a combined “Balance of Plant” auxiliary system that served all three units collectively.
 - ii. Following the retirement of Unit #5 in 2017 and Unit #7 in 2021, the main plants for these units were stopped. However, as the common systems were still essential for supporting Unit #6, they had to remain operational, although at a reduced load. Consequently, the overall operation and maintenance (O&M) requirements did not reduce proportionally to the retirement of two units. Instead, the costs remained significant, exceeding half of what was previously required when two units were operational.
 - iii. The following common systems/auxiliaries, shared by all three units, were maintained in operation even after the decommissioning of Units #5 and #7.
 - Oil Handling Plant
 - Ash Slurry Pump House
 - Clear Water Pump House
 - Ash Booster Pump House
 - Compressor House
 - Workshop
-

-
- CT Fan
 - CTPL Pump House
 - Safety
 - WTP
 - 6.6 KV Station Board
 - Firefighting Pump House /DG Set.
 - CHP
 - Ash Water Recovery
 - GS Pump House
 - Raw Water Pump House
 - Major Store
 - Purchase
 - MPD
 - Security
 - HR
 - Account
 - Civil
 - Hospital
 - Colony Civil
 - Colony Electrical
 - Vehicle Maintenance
- iv. The BoP systems mentioned above are extensive, consisting of numerous smaller individual systems and pieces of equipment. Additionally, these systems are spread over a wide area, necessitating the deployment of substantial manpower (both regular employees and contract labor) to ensure their operation.
- v. When Units 6 and 7 (2x210 MW) were operational, the sanctioned staff strength was 872, with 566 MSPGCL employees actually working. After the decommissioning of Unit 7 on August 3, 2021, the sanctioned posts were reduced to 572, with the current working staff at 476. Attached are staff position statements for April 2021 and November 2024 for comparison.
- vi. Following the decommissioning of Unit 7, the current working MSPGCL staff is approximately 85% of the 566 employees who were working in 2021 when both units were operational. A similar level of labor manpower is also required. In the present scenario, manpower costs for MSPGCL account for approximately 60–70% of the total O&M costs.
- vii. Similarly, the costs for Repairs and Maintenance (R&M) and Administrative and General (A&G) expenses are also significantly impacted. The continued operation of the shared systems results in the R&M and A&G costs for a single unit being more than half of the corresponding costs when two units were operational.
- viii. Therefore, the Petitioner has estimated the O&M costs for Koradi Unit #6 as two-thirds of the total O&M costs incurred when both units were in operation.

- **O&M expense for new units:** MSPGCL submits that the O&M expenses has been considered as per regulations on Rs Lakhs/MW basis for the new stations and in addition to that, the impact of pay revision approved for FY 2021-22 has been escalated at the rate of 4.88% (calculated as per WPI and CPI indices for FY 2022-23) and considered for FY 2022-23. Further, it is submitted that the normative O&M expenses approved in the Regulations for new stations are far lower as compared to the allowance under CERC Regulations. The lower norms lead to significant disallowances in actual O & M expenses as shown in the comparison below:

Table 45: O&M Norms vs actual O&M cost (Rs. Lakhs/MW) for new stations

Sr. No.	Station	Capacity	Total approved MERC norm incl Pay revision	Actuals (Audited)	Difference	Difference
		MW	Rs. Lakh/MW			Rs. Crore
		a	b	c	d=c-b	e=d*a/100
1	Paras Units 3-4	500	31.99	43.24	11.25	56.24
2	Parli Units 6-7	500	32.45	46.30	13.86	69.29
3	Khaperkheda Unit 5	500	21.16	31.80	10.64	53.18
4	Bhusawal Units 4-5	1000	21.48	25.84	4.36	43.57
5	Koradi Units 8-10	1980	17.19	22.60	5.41	107.18
6	Chandrapur Units 8-9	1000	21.12	34.00	12.89	128.85
7	Parli Unit 8	250	32.06	40.41	8.35	20.87
	Total					479.19

- 7.3.7.7 It can be observed from the above table that the norms set by the Hon'ble Commission for new generating stations are on the lower side when compared to the actual O&M expenses of new stations for FY 2022-23. Furthermore, the O&M norms approved by the Hon'ble Commission for new stations are significantly lower than those set by the CERC and other SERCs for similar generating stations. The Petitioner respectfully submits that it has consistently raised these practical difficulties in meeting O&M expenses within the given norms through various Petitions. The Petitioner also expressed its concerns during the framing of the Regulations. However, these submissions were not considered by the Hon'ble Commission in the finalization of the Regulations, nor was any relaxation provided in subsequent Orders issued in various tariff petitions, despite the challenges presented by the Petitioner in meeting the norms.
- 7.3.7.8 In light of the above, the Petitioner respectfully submits that it has not been able to recover a substantial portion of actual O&M expenses. As a result, the Petitioner is unable to allocate sufficient funds for the repairs and maintenance of the plants or stations. This lack of funding leads to extended maintenance periods, adversely affecting the availability of the plants and stations, which in turn results in under-recovery of the entitled fixed costs for the stations. In view of the above, the Petitioner submits that this situation has created a vicious cycle, negatively impacting the financial position of the Petitioner. The

disallowance of such amount would further adverse the precarious financial position of the Petitioner.

- 7.3.7.9 Due to stringent O&M norms, considering disallowance in O&M expenses as per actual O&M expenses and norm set by this Hon'ble Commission, the Petitioner has incurred financial loss of Rs. 479.19 Crore for FY 2022-23. The working of the same is provided in above table.

Table 46: Difference in O&M expense of CERC vs. MERC

Sr. No.	Station	Approved as per MERC norm	Pay revision	Total approved MERC norm incl Pay revision	Actuals (Audited)	Disallowance	CERC Norm
Rs. Lakh/MW							
		a	b	c=a+b	d	e=d-c	f
1	Paras Units 3-4	29.93	2.06	31.99	43.24	11.25	36.56
2	Parli Units 6-7	29.93	2.52	32.45	46.30	13.86	36.56
3	Khaperkheda Unit 5	19.90	1.26	21.16	31.80	10.64	24.97
4	Bhusawal Units 4-5	19.90	1.58	21.48	25.84	4.36	24.97
5	Koradi Units 8-10	22.47	1.10	23.57	22.60	-0.97	22.47
6	Chandrapur Units 8-9	19.90	1.22	21.12	34.00	12.89	24.97
7	Parli Unit 8	29.93	2.13	32.06	40.41	8.35	36.56

- 7.3.7.10 The Petitioner submits that the section 61 of Electricity Act 2003 provides for the recovery of electricity costs in a reasonable manner and State Tariff Regulations need to be guided by the principles and methodologies specified by the Central Commission for determination of tariff. In view of this, the Petitioner respectfully requests the Hon'ble Commission to relax the norms approved by the Hon'ble Commission for new generating stations and align them with CERC norms, and accordingly allow the O&M expenses after sharing of gains and losses.

- 7.3.7.11 Regarding the O&M norms for Koradi Units 8-10, the CEA, in its report as detailed in the earlier section of this Petition, stated that the O&M expense norm for FY 2020-21 (the first year of the MYT Regulations 2019) was significantly reduced to Rs. 14.99 Lakhs/MW, compared to Rs. 16.24 Lakhs/MW for FY 2019-20 (the last year of the MYT Regulations 2015) for 600/660 MW units, reflecting a reduction of approximately 7.7%. In light of this, the Petitioner respectfully submits that the O&M norm for Koradi Units 8-10 set for the entire current MYT control period is based on the lower O&M norms established for the first year of the MYT Control Period. Furthermore, according to the CERC Tariff Regulations 2019, the O&M norm for 600 MW units for FY 2022-23 is Rs. 22.47 Lakhs/MW, and the table above clearly shows that the actual O&M expenses for Koradi Units 8-10 are in line with the CERC norm.

- 7.3.7.12 The relevant excerpt of the CEA report is provided below:

"g) The Committee observed that norms for MERC MYT Regulations 2015 for 660 MW units were understood to have been arrived at by considering around one and half year actual O&M expense details of Bhusawal Unit 4 (500 MW) and around two years actual O&M expenses for Khaperkheda Unit-5 (500 MW) with economy of scale factor 0.9.

Based on the above, the Committee observed that the Normative O&M Expenses as per MERC MYT Regulations 2015 is less by Rs 2.24 Lakh/MW during FY 2016-17 vis-à-vis CERC 2014-19 tariff regulations.

h) The Committee also observed that in case of 660 MW supercritical units of KTPS, first 660 MW unit was commissioned in December 2015 and remaining 2 units were commissioned in November 2016 and January 2017 respectively. It is understood that Actual O&M expenses for FY 2016-17 was considered for framing of O&M expenses of 600/660 MW sets in MYT Regulations 2019.

Based on the above, the Committee observed that under MERC MYT Regulations 2019, base year O&M expense norm for FY 2020-21 (first year of MYT regulations 2019) was reduced substantially to Rs 14.99 Lakhs/MW as compared to Rs 16.24 Lakhs/MW for FY 2019-20 (last year of MYT regulations 2015) for 600/660 MW sets (i.e ~ 7.7% reduction). As mentioned earlier that for initial 2-3 years, O&M expenses of the units remains significantly low and that could be the reason" (Emphasis added)

7.3.7.13 In view of the above, concerning the O&M expenses for Koradi Units 8-10, the Petitioner respectfully requests the Hon'ble Commission to approve the normative O&M expenses in line with the O&M norm of Rs. 22.47 Lakhs/MW (for FY 2022-23) as approved by the CERC in the Tariff Regulations 2019 and accordingly calculate the sharing of gains and losses in O&M expenses. Additionally, considering that the O&M expense norm for the first year is set on the lower side as per the CEA report, the Petitioner respectfully submits that the O&M norms for Koradi Units 8-10 should be applied from FY 2020-21 to FY 2021-22 as well. Therefore, considering that the True-Up for FY 2020-21 and FY 2021-22 has already been undertaken, the Petitioner requests that the Hon'ble Commission allow the incremental O&M expenses by considering the normative O&M expenses to be allowed in line with the CERC norms for FY 2020-21 and FY 2021-22. The working of incremental O&M expenses as per aforesaid norms vis-à-vis O&M expense approved by the Hon'ble Commission in True up Order for FY 2020-21 and FY 2021-22 for Koradi Unit 8-10 is provided as under:

Table 47: Incremental O&M expenses for Koradi Units 8-10 for FY 2020-21 and FY 2021-22 considering CERC Norms

Particulars	UoM	Formula	As per CERC Norms		As per MERC Norms		Incremental expenses	
			FY 2020-21	FY 2021-22	FY 2020-21	FY 2021-22	FY 2020-21	FY 2021-22
			a	b	c	d	e=a-c	f=b-d
Capacity	MW	A	1980	1980	1980	1980		
O&M norm	Rs.Lakh/MW	B	20.97	21.71	14.99	15.53		
O&M norm	Rs. Crore	C=A*B/100	415.21	429.86	296.80	307.49		
Actual O&M Expenses	Rs. Crore	D	327.19	414.94	327.19	414.94		
Efficiency (Gain)/Loss	Rs. Crore	E=D-C	-88.01	-14.91	30.39	107.45		
Sharing of efficiency (Gain)/Loss	Rs. Crore	F	-58.67	-9.94	10.13	35.82		
Net Entitlement	Rs. Crore	G=C+F	356.53	419.91	306.93	343.31	49.60	76.60

7.3.7.14 The Petitioner submits that, under Regulation 47.1(g), IT-related expenses may be claimed over and above the normative O&M expenses. The relevant excerpt of the regulation is provided below,

“g) A Generating Company may undertake Opex schemes for system automation, new technology and IT implementation, etc., and, such expenses may be allowed over and above normative O&M Expenses, subject to prudence check by the Commission:”

7.3.7.15 In view of the above, the Petitioner submits the IT expenses incurred for FY 2022-23, as per the table provided below. The details of IT expenses are provided in enclosed Annexure- 17.

Table 48: IT Expenses for FY 2022-23 (Rs. Crore)

Particulars	FY 2022-23
IT expenses	21.45

7.3.7.16 The Petitioner submits that currently, IT expenses are recorded under A&G expenses in Head Office (H.O) expenses and subsequently allocated to the stations. The Petitioner will provide a station-wise breakdown of IT expenses within A&G expenses during the course of proceedings of this Petition. Currently, IT expenses are included in A&G expenses, and therefore, under the existing framework for sharing (gain)/loss of O&M expenses, IT expenses are not being allowed at actuals over and above the normative values. In light of this, the Petitioner respectfully requests the Hon’ble Commission to allow these IT expenses separately, in addition to the normative O&M expenses, while approving the O&M expenses for FY 2022-23 in the True-Up, based on the details that will be provided by the Petitioner during proceedings of this Petition.

7.3.8 Depreciation

7.3.8.1 The Petitioner has considered the approved closing balances of GFA for FY 2021-22 along with the impact of additional elements as per the review order (Case No. 132 of 2023) in Case 227 of 2022 as the opening balance of GFA for FY 2022-23. Further, basis the additional capitalisation in the stations, the depreciation has been worked out as per the depreciation rates prescribed in the Tariff Regulations.

7.3.8.2 The amount of release of un-discharged liabilities (UDL) during FY 2022-23 is considered as additional capitalization, over and above the additional capitalization recorded in the books of account.

7.3.8.3 The Petitioner has further apportioned the H.O. depreciation as per audited accounts for FY 2022-23. The allocation of H. O. depreciation has been done as per opening balance of Regulatory GFA for the year.

7.3.8.4 The detailed computation of depreciation is provided in the prescribed format being submitted along with this MYT Petition. The overall comparative summary

of depreciation for individual plants vis-à-vis the amounts approved by the Hon'ble Commission is provided in the table below:

Table 49: Comparison of Approved and Actual depreciation for FY 2022-23 (Rs. crore)

Station/Unit	Approved			Actual		
	on GFA	HO	Total	on GFA	HO	Total
Bhusawal Unit 3	8.91	0.30	9.21	9.10	0.06	9.16
Chandrapur Units 3 -7	86.59	2.52	89.11	77.69	0.58	78.28
Khaperkheda Units 1-4	24.23	1.70	25.93	23.97	0.36	24.33
Koradi Unit 6	27.10	0.92	28.02	144.87	0.18	145.05
Nashik Units 3-5	20.25	0.52	20.77	20.10	0.11	20.22
Uran	14.45	1.12	15.56	4.68	0.24	4.91
Paras Units 3-4	86.50	2.11	88.62	84.99	0.45	85.44
Parli Units 6-7	77.99	2.43	80.42	77.73	0.42	78.16
Khaperkheda Unit 5	176.01	2.30	178.32	183.72	0.50	184.22
Bhusawal Units 4-5	340.24	4.39	344.63	342.95	0.93	343.88
Koradi Units 8-10	689.02	8.49	697.51	691.00	1.83	692.83
Chandrapur Units 8-9	336.46	3.99	340.45	334.69	0.88	335.57
Parli Unit 8	97.02	1.21	98.23	94.82	0.26	95.08
SHP	11.52	0.19	11.71	1.81	0.01	1.82
Bhira		-		0.08	0.00	0.08
Koyna		-		8.12	0.03	8.16
Tillari		-		0.52	0.00	0.53
Total	1996.30	32.20	2028.50	2100.84	6.86	2107.69

7.3.9 Interest on long term loans and other finance charges

7.3.9.1 The Hon'ble Commission had approved interest and finance charges of Rs. 1452.77 Crore for FY 2022-23.

7.3.9.2 As per Tariff Regulations 30.5 of MERC (MYT) Regulations 2019, the weighted average rate of interest computed on the basis of the actual loan portfolio during the concerned year shall be considered for the computation of normative interest on loan for the purpose of Truing up. The relevant excerpt of the regulation is provided below for reference:

"30.5 The rate of interest shall be the weighted average rate of interest computed on the basis of the actual long-term loan portfolio at the beginning of each year:

Provided that at the time of Truing-up, the weighted average rate of interest computed on the basis of the actual long-term loan portfolio during the concerned year shall be considered as the rate of interest:"

7.3.9.3 Accordingly, the Petitioner has considered the weighted average interest rate as per the actual loan portfolio of the stations for true-up of interest expenses for FY 2022-23. The said interest rates have been used for the computation of interest expenses on existing loans and new loans.

7.3.9.4 MSPGCL has considered the closing balances of normative loan approved for FY 2021-22 as the opening balances of normative loan for FY 2022-23. Further, the

additional capitalization has been considered to be funded in the normative debt-equity ratio of 70:30. The loan addition during the year has been considered as equivalent to 70% of the actual capitalization for the year. The allowable depreciation has been considered as the repayment of loan for the year. Apart from the above, the opening loan balances include the incremental loan amount towards settlement of LD/UDL in case of new units as explained in the earlier sections of this petition.

- 7.3.9.5 As per the Regulations 30.6 of MERC (MYT) Regulations 2019, the interest on long term loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest. The relevant excerpt of the regulation is provided below for reference:

“The interest on loan shall be computed on the normative average loan of the year by applying the weighted average rate of interest:”

- 7.3.9.6 Accordingly, MSPGCL has computed the interest on long term loans by applying the weighted average rate of interest of the opening balance loan portfolio, on average of opening & closing balance of loans.
- 7.3.9.7 Other Finance Charges mainly comprise of Guarantee Fee payable to GoM, Service Fees, and other bank charges such as bank remittance charges, bank commission, stamp duty towards working capital limit enhancement, etc. Guarantee charges are payable to GoM for providing guarantee to financial institutions for providing loan assistance to MSPGCL.
- 7.3.9.8 The summary of interest and finance charges claimed for the year are summarised below:

Table 50: Comparison of IoLT including finance charges for FY 2022-23 (Rs. Crore)

Station/Unit	Approved			Actual		
	IOL	FC	Total	IOL	FC	Total
Bhusawal Unit 3	-	0.29	0.29	-	0.46	0.46
Chandrapur Units 3 -7	59.59	1.31	60.90	59.40	4.24	63.64
Khaperkheda Units 1-4	5.30	0.57	5.87	5.22	1.85	7.07
Koradi Unit 6	18.60	0.29	18.89	25.01	0.46	25.48
Nashik Units 3-5	3.24	0.99	4.23	3.26	1.63	4.89
Uran	9.35	0.99	10.34	8.61	1.48	10.09
Paras Units 3-4	29.03	0.78	29.81	29.33	1.20	30.53
Parli Units 6-7	12.86	0.63	13.49	13.33	1.10	14.43
Khaperkheda Unit 5	62.78	0.75	63.53	69.59	2.00	71.59
Bhusawal Units 4-5	197.17	0.78	197.95	194.88	1.96	196.84
Koradi Units 8-10	611.07	3.32	614.38	558.48	5.77	564.25
Chandrapur Units 8-9	325.19	1.57	326.76	289.89	4.83	294.72
Parli Unit 8	104.10	0.43	104.53	100.52	0.64	101.16
SHP	0.53	0.00	0.53	0.60	0.00	0.60
Bhira	-	0.00	0.00	0.06	0.00	0.06
Koyna	0.96	0.01	0.97	-	0.01	0.01
Tillari	0.31	0.00	0.31	0.30	0.00	0.30
Total	1,440.07	12.70	1,452.77	1,358.47	27.67	1,386.13

- 7.3.9.9 The finance charges incurred during FY 2022-23 for Rs.27.67 Crore as against approved amount of Rs.12.70 Crore. It is submitted that the amount of finance charges approved for FY 2022-23 was based on the actual for FY 2021-22. During

FY 2022-23, finance charges are increased as compared to FY 2021-22 mainly due to increase in LC charges paid w.r.t procurement of imported coal.

7.3.9.10 Petitioner request the Hon'ble Commission to approve Interest on loan and finance charges as shown in above table.

7.3.10 Interest on Working Capital

7.3.10.1 In the MTR order, the Hon'ble Commission had approved Rs. 789.66 Crore for FY 2022-23. MSPGCL submits that the Interest on working capital has been computed as per the norms based on normative elements of ARR like O&M expenses, maintenance spares, and fuel expenses. The detailed station wise computation of the normative working capital requirement is provided in Form 2.4 as prescribed by the Commission.

7.3.10.2 The Regulation 32.1 (f) of MERC (MYT) Regulations 2019 provides for the calculation of the normative rate of interest for working capital. The relevant excerpt of the Regulation is provided for below for reference.

"32 Interest on Working Capital

32.1 Generation

.....

(f) Rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points:

Provided that for the purpose of Truing-up for any year, interest on working capital shall be allowed at a rate equal to the weighted average Base Rate prevailing during the concerned Year plus 150 basis points." (Emphasis added)

7.3.10.3 The calculation of rate of interest of 9.30% for IoWC for FY 2022-23 is provided below for reference:

Table 51: Calculation of Weighted Average Rate of Interest for IoWC (FY 2022-23)

Date From	Date To	No. of Days	Base Rate
01-04-2022	14-04-2022	14	7.00%
15-04-2022	14-05-2022	30	7.10%
15-05-2022	14-06-2022	31	7.20%
15-06-2022	14-07-2022	30	7.40%
15-07-2022	14-08-2022	31	7.50%
15-08-2022	14-09-2022	31	7.70%
15-09-2022	14-10-2022	30	7.70%
15-10-2022	14-11-2022	31	7.95%
15-11-2022	14-12-2022	30	8.05%
15-12-2022	14-01-2023	31	8.30%
15-01-2023	14-02-2023	31	8.40%
15-02-2023	14-03-2023	28	8.50%
15-03-2023	31-03-2023	17	8.50%
Weighted Average (i)			7.80%
Spread @150 basis points (ii)			1.50%
Interest Rate (i)+(ii)			9.30%

7.3.10.4 The Petitioner submits that the actual interest on working capital of Rs. 1475.10 Crore as per the books of accounts have been considered by MSPGCL for the purpose of truing up.

7.3.10.5 As per first proviso of Regulation 32.6 of Tariff Regulations 2019, it is provided that:

“Provided that the Delayed Payment Surcharge and Interest on Delayed Payment as per books of accounts of the Generating Company or Licensee or MSLDC shall be deducted from the actual interest on working capital, before sharing of the efficiency gain or efficiency loss, as the case may be”

7.3.10.6 In view of the above, it is submitted that as per the provisions under PPA dated 01.04.2009 between MSPGCL and MSEDCL, and also under MERC MYT Regulations, 2019, MSPGCL is allowed to raise Late Payment Surcharge bills on MSEDCL for the delays in receipt of payment for energy bills raised by MSPGCL. Under the methodology adopted by MSPGCL for computing the Late Payment Surcharge bills till FY 2020-21, the payment receipts from the buyer (MSEDCL) are firstly adjusted against the Surcharge amount, due till the payment receipt date and the balance of the amount received is then adjusted against the principal overdue amount till that day. In FY 2019-20, MSEDCL has raised queries on this methodology. As per MSEDCL any payment should be initially adjusted against the principal outstanding amount and balance if any to be adjusted against the LPS dues. At present, an exercise is being undertaken by MSPGCL as well as MSEDCL for reconciliation and finalization of the principal and DPS outstanding amount since PPA date i.e., since FY 2009-10. While the billing reconciliation process between the two Companies is in advance stages, MSEDCL has commenced payment towards liquidation of outstanding dues, as per LPS Rules, 2022, on the basis of outstanding dues as per MSEDCL's assessment.

7.3.10.7 LPS is being recognised in the Books of Accounts on accrual basis. Hence, it is not the case that LPS recognised in the books account would result in reduction in working capital requirement of the Petitioner. Further, the Petitioner most respectfully submits that the LPS is being levied as penalty due to default in payment and on the other hand reducing the working capital requirement of the Petitioner to the extent of LPS based on accrual basis would be unjust for the Petitioner.

7.3.10.8 In light of the above, in the present MYT petition, the Petitioner requests the Hon'ble Commission not to carry out any adjustment of actual Interest on Working capital against the LPS bills raised thus far. Further, the Petitioner requests the Hon'ble Commission to allow it to submit the revised LPS billing data during the proceedings for the present MYT petition along with any incidental impact, provided such methodology and revised LPS workings since FY 2009-10 till FY 2022-23 are approved by MSPGCL Board.

7.3.10.9 Accordingly, for True Up of FY 2022-23, the Petitioner has not taken cognizance of the LPS amount and the Petitioner has claimed the IoWC as per Audited

accounts as shown in below table. The actual IoWC at MSPGCL's level has been allocated to each station based on the net ARR of the respective stations.

Table 52: IoWC as per norms for 2022-23 (Rs. Crore)

Particulars	IOWC Approved	IOWC as per Tariff Calculations	IoWC claimed (actuals)
Bhusawal Unit 3	15.88	11.54	24.06
Chandrapur Units 3 -7	139.81	111.38	215.60
Khaperkheda Units 1-4	61.96	52.53	106.12
Koradi Unit 6	17.59	17.00	40.37
Nashik Units 3-5	52.55	38.78	78.75
Uran	28.71	28.45	55.56
Paras Units 3-4	35.80	35.85	71.91
Parli Units 6-7	47.81	42.29	84.82
Khaperkheda Unit 5	45.46	40.47	87.65
Bhusawal Units 4-5	82.57	81.38	174.08
Koradi Units 8-10	139.54	133.66	273.43
Chandrapur Units 8-9	87.60	84.91	181.43
Parli Unit 8	22.76	20.16	38.64
SHP	11.64	7.34	19.02
Bhira		0.16	0.47
Koyna		8.40	22.30
Tillari		0.34	0.89
Total	789.66	714.62	1475.10

7.3.10.10 Further, as detailed out in foregoing section MSEDCL has participated in the liquidation of arrears scheme for total amount of Rs.13801 Crore (Principal amount of Rs.8881 Crore and LPS of Rs.4920 Crore). The Petitioner most respectfully submits that current scheme for liquidation of outstanding amount brought out vide Electricity (Late Payment Surcharge and Related matters) Rules, 2022, does not explicitly permit the levy of interest/LPS on the agreed arrears. Hence, the Petitioner has been losing the interest amount on the part of outstanding agreed dues for the scheme. In view of this, the Petitioner has calculated the impact of loss of interest on such amount for the period of 48 months as per LPS scheme at the rate of 10.40%. The interest on outstanding amount of Rs.13801 Crore for FY 2022-23 worked out to Rs.1114.08 Crore. Considering that deferment of recovery of such amount would arise the requirement of working capital for the Petitioner, hence the Petitioner request the Hon'ble Commission to allow normative IoWC amount of Rs.1114.08 Cr over above the normative IoWC amount computed in above table and request the Hon'ble Commission to work out sharing of gain and losses on IoWC amount accordingly.

7.3.10.11 In view of above, claim of normative and actual IoWC would be as under:

Table 53: IoWC for 2022-23 including loss of Interest (Rs. Crore)

Particulars	Normative IoWC	Actual IoWC paid
	a	b
Station wise Total (A)	714.62	1475.10
Add: Loss of Interest (B)	1,114.08	
Total (A+B)	1,828.70	1,475.10

7.3.10.12 The Petitioner further submits that the beneficiaries have partially accepted the long-standing recoveries, and any adjustment of LPS on an accrual basis instead of a receipt basis would lead to a shortfall in recovery (ARR) and potentially increase future liabilities. This approach would also undermine the MYT framework, which aims for certainty and legitimate cost recovery. Hence, considering this practical difficulty in recovering the reasonable cost during the relevant year, the Petitioner respectfully requests the Hon'ble Commission to permit claiming the differential impact of IoWC based on the actual realization of LPS for FY 2022-23 in the future.

7.3.11 Return on Equity (RoE)

7.3.11.1 In the MYT Order, the Hon'ble Commission had approved the ROE of Rs 1617.45 Crore for 2022-23. The base rate of return on equity has been considered as 14.00% for 2022-23, based on the Regulation 29.2 of MERC (MYT) Regulations 2019. The additional RoE on account of ramp rate and achievement of Mean Time Between Failure (MTBF) have been worked out as per Regulation 29.6 of MERC (MYT) Regulations 2019. The detailed working of the additional ROE % on account of MTBF is provided as under. MTBF certificates are provided in Annexure - 18

Table 54: Working of additional RoE as per MTBF for 2022-23

Stations	Capacity (MW)	MTBF (days)	Additional RoE linked to MTBF
Bhusawal Unit 3		24.06	0.00%
Chandrapur Units 3 -7			0.05%
Unit 3	210	36.93	0.00%
Unit 4	210	49.92	0.50%
Unit 5	500	31.95	0.00%
Unit 6	500	25.80	0.00%
Unit 7	500	20.39	0.00%
Khaperkheda Units 1-4			0.13%
Unit 1	210	44.41	0.00%
Unit 2	210	72.75	0.50%
Unit 3	210	22.02	0.00%
Unit 4	210	28.82	0.00%
Koradi Unit 6	210	13.47	0.00%
Nashik Units 3-5			0.00%
Unit 3	210	15.21	0.00%
Unit 4	210	43.31	0.00%
Unit 5	210	18.59	0.00%

Stations	Capacity (MW)	MTBF (days)	Additional RoE linked to MTBF
Paras Units 3-4			0.00%
Unit 3	250	15.09	0.00%
Unit 4	250	19.69	0.00%
Parli Units 6-7			0.00%
Unit 6	250	17.11	0.00%
Unit 7	250	21.57	0.00%
Khaperkheda Unit 5	500	44.33	0.00%
Bhusawal Units 4-5			0.00%
Unit 4	500	23.50	0.00%
Unit 5	500	22.87	0.00%
Koradi Units 8-10			0.00%
Unit 8	660	31.44	0.00%
Unit 9	660	26.06	0.00%
Unit 10	660	37.11	0.00%
Chandrapur Units 8-9			0.50%
Unit 8	500	59.38	0.50%
Unit 9	500	49.42	0.50%
Parli Unit 8	250	28.80	0.00%

Station	Capacity (MW)	MTBF (days)	Additional RoE linked to MTBF
GTPS- Uran			0.12%
Unit-5	108	115.30	1%
Unit-6	108	32.53	0%
Unit-7	108	0.00	0%
Unit-8	108	24.97	0%
Unit-A0	120	39.33	0%
Unit-B0	120	10.56	0%

7.3.11.2 The Petitioner has considered the closing balance of equity for FY 2021-22 approved in MTR Order as the opening balance for FY 2022-23. Additionally, equity amount (30% of capitalisation) of Rs. 40.18 Crore on account of LD finalisation of Koradi Units 8-10 have been added in closing balance of equity approved by the Hon'ble Commission in MTR Order for FY 2021-22. The equity addition for FY 2022-23 has been considered equivalent to 30% of capitalization for the years as normative debt equity ratio. The Petitioner has included the impact of incremental equity pursuant to consideration of settlement of UDL during FY 2022-23 in case of recently commissioned units as explained in the earlier section of this petition. The True up summary for the Return on Equity is provided in the table below:

Table 55: Comparison of RoE for FY 2022-23 (Rs. Crore)

Station	Approved	Actual
Bhusawal Unit 3	13.40	13.40
Chandrapur Units 3 -7	131.76	130.50
Khaperkheda Units 1-4	138.62	142.25
Koradi Unit 6	37.23	37.09
Nashik Units 3-5	35.09	35.52
Uran	42.38	42.49
Paras Units 3-4	132.24	132.16
Parli Units 6-7	131.30	131.23
Khaperkheda Unit 5	103.77	111.06
Bhusawal Units 4-5	183.23	183.52
Koradi Units 8-10	427.34	428.91
Chandrapur Units 8-9	178.27	183.25
Parli Unit 8	56.87	55.00
SHP	4.09	1.23
Bhira	0.11	0.07
Koyna	0.49	3.51
Tillari	1.26	0.48
Total	1,617.45	1,631.69

7.3.12 Income Tax

7.3.12.1 The Petitioner submits that income tax for the regulated business shall be allowed on Return on Equity. RoE including additional RoE shall be grossed up with effective tax rate and the said tax rate shall be considered based on the actual income tax paid. In view of this, there was no income tax paid during FY 2022-23, RoE has been grossed up with 0% of income tax for the true-up.

7.3.13 Hydro Lease Rental

7.3.13.1 In the MTR order, the Hon'ble Commission had approved Rs. 541.20 Crore for hydro lease rentals for FY 2022-23. Further, MSPGCL has paid GST on the lease rentals which are actually paid to GOM as per the Order of the Hon'ble Commission. The overall lease rentals are accordingly provided in the table below:

Table 56: Hydro lease rent expenses in FY 2022-23 (Rs Crore)

Sr. No.	Station	Amount (Rs. Crore)
1	Koyna	307.85
2	SHP	233.35
	Total	541.20

7.3.14 Incentive for excess Hydro Generation

7.3.14.1 The Petitioner respectfully submits that, in accordance with the provisions of Regulation 51 of the MYT Regulations, 2019, the availability of the hydro station and the actual generation exceeding the normative availability and design energy qualify for the applicable incentive.

7.3.14.2 Accordingly, the Petitioner has claimed an incentive amounting to Rs. 14.18 Cr. for FY 2022-23. The detailed computation of the incentive is provided in the table below.

Table 57: Hydro Incentive for FY 2022-23

Particulars	Unit	Koyna	Bhira	Tillari	Total
Fixed Cost for Hydro	Rs. Crore	140.53	9.61	17.01	167.16
Normative Availability	%	90%	90%	90%	
Actual Availability	%	92.86%	99.10%	96.67%	
Normative Capacity Charge	Rs.Crore	70.27	4.81	8.51	83.58
Design Energy	MU	3,158.00	70.00	106.06	3,334.06
Auxiliary Consumption	%	1.13%	0.70%	1.20%	
Net Design Energy	MU	3122.31	69.51	104.79	3,296.61
Energy Charge Rate	Rs./Kwh	0.23	0.69	0.81	
Actual Net Generation	MU	3450.12	94.15	126.33	3,670.60
Energy Charge billed	Rs. Crore	77.64	6.51	10.26	
AFC incentive	Rs. Crore	2.23	0.49	0.63	3.35
VC Incentive	Rs. Crore	7.38	1.70	1.75	10.83
Total incentive	Rs. Crore	9.61	2.19	2.38	14.18

7.3.15 Non-Tariff Income (NTI)

7.3.15.1 For the purpose of truing up, MSPGCL has considered the certain deductions in the Non-Tariff Income (on account of implementation of Ind-AS/ IFRS) reflected in the books of accounts.

7.3.15.2 The Petitioner submits that details of the amount claimed under Non-Tariff Income is provided in the tariff format provided separately.

7.3.15.3 Following is the station wise summary of the NTI approved and amount being claimed in the present Petition for FY 2022-23.

Table 58: Non-Tariff Income for FY 2022-23 (Rs. Crore)

Station	NTI Approved in MTR	NTI Actual (claimed)
Bhusawal Unit 3	3.99	1.50
Chandrapur Units 3 -7	30.89	10.59
Khaperkheda Units 1-4	28.94	-0.69
Koradi Unit 6	15.09	5.50
Nashik Units 3-5	7.94	1.46
Uran	0.47	1.62
Paras Units 3-4	7.49	8.68
Parli Units 6-7	2.12	4.18
Khaperkheda Unit 5	17.22	0.59
Bhusawal Units 4-5	19.00	6.47
Koradi Units 8-10	105.93	8.03
Chandrapur Units 8-9	16.09	5.60
Parli Unit 8	1.63	4.43
SHP	3.47	0.33
Bhira		0.01
Koyna		3.15
Tillari		0.07
Total	260.27	61.53

7.3.15.4 From the above table, it can be observed that the actual non-tariff income is lower than the amount approved in the MTR Order. During the submission of the provisional True Up for FY 2022-23, the Petitioner included certain elements of other income under NTI. However, in this current True Up submission, some of these elements have been reclassified under appropriate expense categories by offsetting them against the respective expense heads. This reclassification has led to the deviation between the actual NTI for FY 2022-23 and the NTI approved in the MTR Order, as shown in the above table.

Table 59: Adjustments in NTI in FY 2022-23 (Rs. Crore)

Particulars	Rs. Crore	Adjusted under head
Recovery of liquidated damages/penalties against coal supply contract	88.61	Coal cost (Form 2.2)
Recovery of liquidated damages/penalties against R&M expense	12.31	R&M expense (Form 3.4)
Income from sale of Reject Coal	117.88	Coal cost (Form 2.2)
Total	218.80	

7.3.15.5 The reconciliation of NTI reflecting in books of account and NTI claimed for True up is provided below:

Table 60: Reconciliation of NTI reflecting in Audited Accounts & claimed in True up for FY 2022-23 (Rs. Cr)

Particulars	As per Accounts	Claimed in True up	Remark
Other operating revenues			
Gain on sale of Fixed assets	-1.36	-1.36	
Gain on sale of Fixed assets of BSL created through Ash Fund	2.90	-	Since assets were created through Ash fund, it is excluded from NTI claim
Late payment surcharge	3,949.25	-	Not considered under NTI as per Regulation 37.3 of MERC (MYT) Regulations 2019
Sale of Rejected Coal	117.88	-	Adjusted against fuel cost.
IPP Sale of Coal	116.40	-	Related to Case IV. Hence, not claimed
Total (A)	4,185.07	-1.36	
Other Income			
sale of scrap	31.44	31.44	
Rental from contractors & staff Quarters	4.11	4.11	
Other Misc Income	4.97	4.82	Rs.0.15 Cr is pertaining to Solar Business, hence not included
Loss on obsolescence of stores	10.12	-	Since it is provision, excluded from NTI claim
Income of LD recovery (Koradi)	-	4.78	
Income of LD recovery adjusted in Wash Coal Cost	93.39	-	Adjusted against fuel cost. Hence not considered
Income of LD recovery adjusted in R&M	12.32	-	Adjusted against R&M cost. Hence not considered
Credit Balances Written Back	86.25	-	It's a provision, hence not considered
Aptel	0.12	-	Not pertain to regulated business
HO	7.48	7.48	
Total (B)	250.19	52.63	
Energy and demand charges of Supply of electricity to the housing colonies of its operating staff and supply of electricity for construction works at generating Station (Booked under Sale of Power) (C)	10.27	10.27	
Grand Total (A+B+C)	4,445.53	61.53	

7.3.15.6 The Petitioner request the Hon'ble Commission to approve the NTI as claimed in above table.

7.4 Sharing of gain and losses on account of controllable factors

7.4.1 Regulatory provisions

7.4.1.1 The Regulation 11 of MERC (MYT) Regulations 2019 provides for mechanism for sharing of gains or losses on account of controllable factors. The relevant provisions of the said regulations are provided below:

"11.1 The approved aggregate gain to the Generating Company or Licensee or MSLDC on account of controllable factors shall be dealt with in the following manner:

(a) Two-third of the amount of such gain shall be passed on as a rebate in Tariff over such period as may be stipulated in the Order of the Commission under Regulation 8.4;

(b) The balance amount of such gain shall be retained by the Generating Company or Licensee or MSLDC.

11.2 The approved aggregate loss to the Generating Company or Licensee or MSLDC on account of controllable factors shall be dealt with in the following manner:

(a) One-third of the amount of such loss may be passed on as an additional charge in Tariff over such period as may be stipulated in the Order of the Commission under Regulation 8.4;

(b) The balance amount of such loss shall be absorbed by the Generating Company or Licensee or MSLDC."

7.4.1.2 In accordance with the aforesaid provisions, the Hon'ble Commission has allowed normative expenses in the MTR Order. The Petitioner has carried out the sharing of gain or losses under the following heads:

- i. Sharing of losses in O&M expenses.
- ii. Sharing of losses in fuel expenses.
- iii. Sharing of gains towards IoWC.
- iv. Sharing of normative revenue loss due to higher AEC.

7.4.2 Sharing of gain or losses in O&M expenses

7.4.2.1 Vide MTR order, under provisional True up of FY 2022-23, the Hon'ble Commission had approved O&M expense for FY 2022-23 for old stations, based on the historical average O&M expense with escalation rate (as per available numbers of WPI/CPI indices for FY 2021-22) as per norm provided in Regulation 47.1 (c) of MERC (MYT) Regulations 2019. Normative O&M expense of new generating stations are considered as per Regulation 47.2 of MERC (MYT)

Regulations 2019. Further, impact of pay revision has been approved separately for FY 2022-23 based on the actual amount for FY 2021-22 with escalation rate for FY 2021-22 for old and new generating stations. In light of this, the revised normative O&M expense worked out considering the escalation rate as per WPI/CPI indices number for FY 2022-23 as detailed out in the section of O&M expenses. The actual O&M expense claimed are including actual impact of pay revision paid during FY 2022-23.

- 7.4.2.2 Considering the significant disallowance of O&M expenses due to the stringent O&M norms approved by this Hon'ble Commission compared to the actual O&M expenses of new generating stations, and considering that MERC norms for O&M expenses are much lower than those set by CERC, the Petitioner requests that the O&M norms be aligned with CERC norms. However, for the purpose of calculating the sharing of gains and losses in O&M expenses, the Petitioner has currently used the revised normative O&M expenses as per MERC norms, as approved in Regulation 47.2 of the MERC (MYT) Regulations 2019. The Petitioner respectfully requests the Hon'ble Commission to relax the O&M norms for new generating stations and approve the sharing of gains and losses in O&M expenses accordingly.
- 7.4.2.3 For the purpose of sharing of gain or losses in O&M expense, the revised normative expense is compared with actual expenses (including pay revision). In accordance with the provision of 47.2 of MERC (MYT) Regulations 2019, water charges and other charges are considered at actuals in order to arrive the total entitle O&M expense after sharing of gain and losses.
- 7.4.2.4 Following is the calculation of total entitlement of O&M expense after sharing of gain and losses for FY 2022-23.

Table 61: Calculation of sharing of gain or losses in O&M expenses for FY 2022-23 (Rs. Crore)

Stations	Revised Normative O&M incl pay revision approved	Actual O&M expense (Incl. pay revision)	Efficiency (gain)/loss	Sharing of Efficiency (Gain)	Net Entitlement after sharing of (gains)/losses	Add: Water charges	Add: Other charges	Add: Hydro colony related exp	Total O&M exp entitlement after sharing
	a	b	c=b-a	d	e=a+d	f	g	h	I=e+f+g+h
MSPGCL Total	3,204.21	3,690.44	486.23	162.08	3,366.28	322.72	295.06	2.70	3,986.77

7.4.3 Sharing of gain or losses in Fuel expenses

- 7.4.3.1 The revised normative fuel expense is worked out as per the actual gross generation as detailed out in the section of fuel expense. As the normative Energy Charges approved by the Hon'ble Commission at target norms of operation viz., GSHR, SFOC and transit and handling loss and the norms of operation are controllable factors, the Petitioner has undertaken the sharing of gains and losses in energy charges on account of variation in norms of operation in accordance with the MERC (MYT) Regulations, 2019.
- 7.4.3.2 Following is the calculation of sharing of gain or losses in fuel expense for FY 2022-23.

Table 62: Calculation of sharing of gain or losses in fuel expenses for FY 2022-23 (Rs. Crore)

Stations	Revised normative fuel expenses	Actual fuel expenses	Efficiency (gain)/loss	Sharing of Efficiency Gain	Net Entitlement after sharing of gains/(losses)
	a	b	c=b-a	d	e=a+d
MSPGCL Total	19,113.91	22,698.40	3,584.49	1,194.83	20,308.74

7.4.3.3 In light of above, the Petitioner request the Hon'ble Commission to approve the net entitlement of fuel cost of Rs.20308.74 Crore after sharing gain and losses in fuel cost.

7.4.4 Sharing of gain or losses towards Interest on working capital

7.4.4.1 As per revised normative ARR, normative interest on working capital is computed as per Hon'ble Commission methodology and compared with the actual interest on working capital paid and accordingly considered the sharing of gain and losses towards interest on working capital.

7.4.4.2 As submitted in foregoing section, considering loss of interest of Rs.1114.08 Crore in normative IoWC, the sharing of gain of IoWC worked out as under:

Table 63: Working of sharing of gain or losses in Interest on working capital for FY 2022-23 (Rs. Crore)

Stations	Revised normative IoWC	Add: Loss of Interest	Total Revised normative IoWC	Actual IoWC paid	Efficiency (gain)/loss	Sharing of Efficiency Gain	Net Entitlement after sharing of gains/(losses)
	a	b	c=a+b	d	e=d-c	f	g=c+f
MSPGCL Total	714.62	1,114.08	1,828.70	1,475.10	-353.61	-235.74	1,592.97

7.4.4.3 In view of above, the Petitioner request the Hon'ble Commission to approve the net entitlement of IoWC after sharing of gain and losses of Rs.1592.97 Crore after sharing of gain and losses in IoWC.

7.4.5 Revenue Gain/ (loss) due to lower/ higher Auxiliary Consumption:

7.4.5.1 The difference between the actual auxiliary consumption and normative auxiliary consumption resulted in the lesser/ additional sales units, due to higher/ lower actual auxiliary consumption, than the normative auxiliary consumption. The Petitioner has computed the station-wise lesser/ additional sales units and used the revised normative station-wise energy charge computed by the Petitioner in the present Petition to arrive at the revenue loss/ gain due to higher/ lower auxiliary consumption. This revenue loss/ gain is then shared with the consumers as per the provisions of Regulation 11 (Mechanism

for sharing of gains or losses on account of controllable factors) of MERC (MYT) Regulations 2019.

7.4.5.2 It is submitted that some stations were instructed by MSEDCL to remain under Reserve Shut Down (RSD) during FY 2022-23 due to lower demand. Additionally, with the implementation of Case IV on any one of Nashik Units 3-5, one unit remained shut down during the implementation period from October 2022 to March 2023. Under these conditions, certain auxiliaries remained in operation to meet plant requirements, leading to an increase in auxiliary consumption (in percentage terms) during FY 2022-23. Therefore, when calculating the Revenue Gain/(Loss) due to lower/higher auxiliary consumption, the Petitioner has excluded the auxiliary consumption (MU) for these units. The actual auxiliary consumption is compared with the normative auxiliary consumption to determine the revenue loss/(gain) due to higher/lower auxiliary consumption for FY 2022-23. It may please be noted that auxiliary consumption (normative) computed by sharing common system load with three-unit operation of Nashik TPS is shared by two units only.

7.4.5.3 In view of above, revenue Loss/(Gain) due to higher/lower Aux. consumption for FY 2022-23 is tabulated below-

Table 64: Revenue Loss/(Gain) due to higher/lower Aux. consumption for FY 2022-23 (Rs Crore)

Station	Actual Gross Generation (MU)	Normative AEC %	Actual AEC %	Lesser/ (Additional) energy sale (MU)	Rate of Energy Charge (Rs. kWh)	Revenue Loss due to higher AEC (Rs. Cr)	Sharing of Efficiency (Gain)/Loss
Bhusawal Unit 3	715.53	10.96%	14.20%	23.16	4.83	11.19	3.73
Chandrapur Units 3 -7	8,413.77	9.34%	11.06%	144.95	4.35	63.09	21.03
Khaperkheda Units 1-4	4,336.60	10.21%	11.25%	45.07	3.76	16.96	5.65
Koradi Unit 6	1,319.34	10.81%	11.28%	6.22	3.09	1.93	0.64
Nashik Units 3-5	2,528.06	10.75%	12.52%	44.73	4.94	22.10	7.37
Uran - Open Cycle	322.30	1.00%	1.82%	2.64	8.94	2.36	0.79
Uran - Combined Cycle	1,168.91	3.10%	3.11%	0.17	5.29	0.09	0.03
Paras Units 3-4	3,069.68	10.25%	10.98%	22.34	3.50	7.83	2.61
Parli Units 6-7	2,794.85	10.25%	11.55%	36.23	4.82	17.47	5.82
Khaperkheda Unit 5	3,438.70	6.00%	5.85%	-5.03	3.41	-1.71	-1.14
Bhusawal Units 4-5	6,119.49	6.00%	6.36%	22.07	3.90	8.61	2.87
Koradi Units 8-10	11,107.63	6.00%	7.34%	148.47	3.14	46.67	15.56
Chandrapur Units 8-9	6,668.54	6.00%	5.51%	-32.43	3.77	-12.21	-8.14
Parli Unit 8	1,133.13	9.14%	13.52%	49.67	4.79	23.78	7.93
Total	53,136.53			508.28	62.55	208.15	64.74

7.5 Final entitlement for FY 2022-23

7.5.1 AFC reduction:

7.5.1.1 As regards the recovery of Annual Fixed Cost, Regulation 50 (A) of MYT Regulations, 2019, stipulates as follows:

“The fixed cost of a thermal generating station shall be computed on annual basis based on the norms specified under these Regulations and recovered on monthly basis under Capacity Charge. The total Capacity Charge payable for a generating station shall be shared by its beneficiaries as per their respective

percentage share or allocation in the capacity of the generating station. **The Capacity Charge shall be recovered under two segments of the year, i.e., High Demand Season (period of three months) and Low Demand Season (period of remaining nine months), and within each season in two parts, viz., Capacity Charge for Peak Hours of the month and Capacity Charge for Off-Peak Hours of the month”**

7.5.1.2 In light of the above provisions, the Petitioner has computed the AFC reduction of fixed cost as shown below:

Table 65: Working of AFC reduction for FY 2022-23 (Rs Crore)

Stations	AFC minus water charges	Target availability	HDS - Peak hours	HDS- Off-peak hours	LDS- Peak hours	LDS- Off-peak hours	AFC Reduction
Bhusawal Unit 3	143.68	80.00%	61.11%	61.04%	55.11%	55.42%	41.70
Chandrapur Units 3 -7	1,062.67	80.00%	68.16%	68.10%	46.50%	46.88%	370.23
Khaperkheda Units 1-4	552.81	85.00%	69.86%	68.56%	61.45%	62.01%	138.99
Koradi Unit 6	363.66	72.00%	79.86%	80.43%	67.48%	68.58%	13.78
Nashik Units 3-5	419.88	80.00%	71.65%	72.15%	63.79%	63.74%	74.39
Uran	183.22	26.18%	0.00%	0.00%	0.00%	0.00%	-
Paras Units 3-4	451.47	85.00%	82.37%	82.67%	67.98%	68.07%	70.70
Parli Units 6-7	436.58	85.00%	77.35%	78.10%	73.29%	73.87%	52.37
Khaperkheda Unit 5	529.45	85.00%	89.89%	91.41%	82.28%	82.61%	11.47
Bhusawal Units 4-5	1,049.21	85.00%	81.35%	81.37%	75.53%	74.52%	106.35
Koradi Units 8-10	2,320.83	85.00%	74.38%	73.63%	60.85%	60.29%	580.23
Chandrapur Units 8-9	1,128.74	85.00%	88.64%	88.53%	80.56%	79.62%	51.69
Parli Unit 8	361.43	85.00%	52.01%	52.74%	55.76%	55.66%	127.97
Total	9,003.64						1,639.88

7.5.1.3 The expense side True up (After sharing of gain or losses) for FY 2022-23 as per tariff regulations is provided in the table below:

Table 66: Actual Expense and Final Entitlement for FY 2022-23 (Rs Crore)

Particulars	Revised Normative	Actual	Efficiency (Gain)/Loss	Sharing of efficiency (Gain)/Loss	Net entitlement
	A	B	C=B-A	D=1/3rd of (Gain)/Loss	E=A+D
Expenses side summary					
Return on Equity	1,632.00				1,632.00
Interest on Loan	1,386.57				1,386.57
Depreciation	2,107.69				2,107.69
O&M expenses	3,204.21	3,668.99	464.79	154.93	3,359.14
Pay revision arrears (Pay out of FY 18-19 2nd instalment)					-
Pay revision		-			-
Water Charges		322.72			322.72
Other Charges		295.06			295.06
Other charges - Hydro colony related		2.70			2.70
Interest on Working Capital	1,828.70	1,475.10	-353.61	-235.74	1,592.97
IT Expenses		21.45			21.45
Less: Non-Tariff Income		61.53			61.53
Annual Fixed Charges					10,658.75
Income Tax		-			-
Hydro Incentive		14.18			14.18
Hydro Lease Rent		541.20			541.20
Fuel Cost	19,113.91	22,698.40	3,584.49	1,194.83	20,308.74
Aggregate Revenue Requirement					31,522.87
AFC Reduction					1,639.88
Net Revenue Requirement					29,882.99
Revenue from sale of power		26,976.20			26,976.20
Revenue loss due to higher auxiliary consumption				64.74	64.74
Revenue for true-up					27,040.95
Revenue Gap/(Surplus)					2,842.04
Revenue Gap/(Surplus) approved in MTR Order					-1,031.72
Net Revenue Gap/(Surplus) to be approved after final true-up					3,873.76

7.5.1.4 As depicted in above table, the total revenue considered for true up in FY 2022-23 is Rs. 26976.20 Crore and revenue loss after sharing due to higher auxiliary consumption of Rs.64.74 Crore is considered for calculating the net revenue gap for FY 2022-23.

7.5.1.5 Further, surplus of Rs.1031.72 Crore were adjusted and passed on to the consumers in MTR Order (Case No. 227 of 2022). Hence, net revenue gap for FY 2022-23 as per True Up worked out to Rs.3873.76 Crore. Accordingly, the Petitioner request the Hon'ble Commission to approve the same.

7.5.1.6 The summary of final entitlement for FY 2022-23 after AFC reduction, after sharing of gain and losses for O&M charges, fuel expense, loWC, higher/lower auxiliary consumption and after adjusting the revenue surplus pass on to the consumers under provisional true up of FY 2022-23 is shown as below:

7.6 Other issues to be tried up

7.6.1 Expenses for CMAGF projects (MSKVY) for FY 2022-23

7.6.1.1 The Petitioner had filed a Petition (Case 172 of 2017) in the matter of removal of difficulties in the implementation of "Mukhya Mantri Solar Agricultural Feeder Scheme", approval of draft Power Purchase Agreement (PPA) & draft

Power Sale Agreement (PSA) being executed by MSPGCL with the developer and Maharashtra State Electricity Distribution Co. Ltd., respectively for Agriculture (AG) Feeder Solar Power Projects in Maharashtra. In this matter, MSPGCL had requested the Commission for approval of additional A & G expenses to be recovered in the form of trading margin on a per unit basis.

- 7.6.1.2 While disposing off the Petition' (Case 172 of 2017) vide Order dated 16 October 2018, the Commission had ruled the following for recovery of such additional A & G expenses:

The Commission notes that the Intra-State Trading margin has not yet determined by the Commission. On this issue the Commission in its Order dated 25 September, 2018 in Case NO.104 of 2018 has directed MSPGCL as follows;

"23. MSPGCL shall abide by such trading margin, as and when same is decided by the Commission to fix under Section 86(I)U) of the Electricity Act, 2003 for Intra-State Trading transactions in the State of Maharashtra." (Emphasis added) The Commission notes that presently upto seven paise per unit is allowed to SECI as a trading margin as an intermediary whereas MSPGCL under the present Case has proposed five paise per unit as an Administrative charge. After considering the Administrative charges of MSPGCL, the power purchase cost of the power from the proposed scheme works out to Rs. 3.20 per unit. Considering the decreasing trend of Solar tariffs, such an additional trading margin of 5 paise per unit over and above the discovered tariff/rate will add more burden on the end consumers.

Moreover, MSEDCL in its submission dated June 2, 2018 on this issue of MSPGCL's Administrative charge, has stated that; the administrative expenses incurred by MSPGCL towards implementation of the scheme as an intermediary procurer may be claimed by MSPGCL in their Aggregate Revenue Requirement (ARR) and no administrative charges be added to the PPA tariff. MSEDCL further stated that the Commission may review and decide the administrative charges proposed by MSPGCL in transparent manner as such charges shall have long term impact. In light of above submissions and circumstances the Commission rejects MSPGCL's prayers regarding approval of the administrative charges (Trading margin) of 5 Poise per unit. Until the trading margin is duly determined, MSPGCL can claim prudent administrative expenses as an intermediary procurer as part of its ARR. "

- 7.6.1.3 In view of the above, the Petitioner has been claiming the expenses incurred by it on development of Solar Power project under Chief Minister Agricultural feeder (CMAg) Solar scheme.
- 7.6.1.4 It is further to submit here that even though in the GoM GR dated 14.06.2017 and 17.03.2018 it is envisaged that the Government land will be made available at nominal lease rent of Rs. 1 per year, during the initial phase of implementation of the scheme, there were some more expenses were incurred

by MSPGCL for land acquisition and land development. The issue of reimbursement of these expenses was raised by MSPGCL before the CMAG Scheme Implementation Committee headed by Hon'ble Principal Secretary (Energy), GoM. In the meeting dated 05.04.2019, the Committee had resolved to approach GoM for reimbursement of these expenses. Accordingly, MSPGCL had approached Energy Department, GoM for reimbursement of such expenses to MSPGCL. However as of now GoM has not made any reimbursement of such land acquisition expenses incurred by MSPGCL. Therefore, it is to be requested to the Hon'ble Commission to consider these expenses for reimbursement through ARR as directed under order dated 16.10.2018 in Case No. 72 of 2017.

- 7.6.1.5 The Petitioner submits that the details for CMAG scheme related expense for FY 2022-23 is Rs. 5.01 Crore, the details are tabulated below,

Table 67: Expenses for CMAG projects for FY 2022-23 (in Rs. Cr.)

Sr. No.	Particulars (in Rs. Cr.)	FY 2022-23
1	Cost of Material & Service Consumed	1.36
2	Employee Benefit expense	3.06
3	Finance Cost	0.00
4	Depreciation and Amortization expense	0.03
5	Other Admin and General Expense	0.56
	Total	5.01

- 7.6.1.6 The auditor certificates regarding the CMAG expenses are attached as Annexure - 19

7.6.2 Issue of unilateral deduction of O&M charges and lease rent for Ghatghar PSS

Background:

- 7.6.2.1 The Ghatghar Hydro Power Station (2x125 MW) has been entrusted to MSPGCL for operation and maintenance on a lease basis by the Water Resources Department (WRD), Government of Maharashtra. The Petitioner is currently operating the plant for the purpose of supplying power to MSEDCL. The units of this power station were specifically designed and custom-made by M/s Fuji Electric, Japan, according to specific requirements. Furthermore, all accessories essential for the power plant's operation were also designed and supplied by M/s Fuji Electric, Japan.
- 7.6.2.2 The Power Purchase Agreement (PPA) between the Petitioner and MSEDCL was executed on 12.05.2014, with an addendum signed on 13.08.2015. According to the terms of the PPA and its addendum, the Petitioner is obligated to supply both active and reactive power to MSEDCL without raising any energy bills for the power supplied. In return, MSEDCL is required to pay the O&M charges, lease rent, and any other charges to MSPGCL, subject to the approval by the Hon'ble Commission. The details of the PPA and the Addendum is provided in the **Annexure – 20**. The excerpt of the clauses is provided below for reference.

“4.1 The power (Active & Reactive both) injected in grid by Ghatghar PSS will be treated as power supplied to MSEDCL by MSPGCL. No energy bill will be raised by MSPGCL to MSEDCL for the power supplied to MSEDCL.

...

4.4 The O&M charges, Lease rent, and/or any other charges will be payable to MSPGCL by MSEDCL subject to approval of Hon’ble Commission.”

7.6.2.3 The Petitioner respectfully submits that MSEDCL, through letters dated March 11, 2019, and November 13, 2020, deducted O&M charges and lease rent for the Ghatghar PSS citing lower availability of the power station during FY 2017-18, FY 2018-19, FY 2019-20, and FY 2020-21. Details of the charges deducted by MSEDCL are provided below. The aforementioned letters from MSEDCL are attached hereto as **Annexure - 20**.

Table 68: Details of the charges deducted by MSEDCL

FY 2017-18 & FY 2018-19							
Sr. No.	Name	Trip Date	Synchronisation Date	Reason	Deducted O&M (Rs. Cr.)	Deducted Lease Rent (Rs. Cr.)	Total (Rs. Cr.)
1	Ghatghar Unit-2	7/28/17; 00:00	3/31/18; 14:00	Due to common Pressure shaft	6.69	69.27	75.96
2	Ghatghar Unit-1	7/28/17; 00:00	10/5/17; 11:25	RBDV leakage attending work	1.88	19.52	21.4
3	Ghatghar Unit-1	4/14/18; 23:45	8/13/18; 02:12	Stator Earth Fault	3.27	32.55	35.82
4	Ghatghar Unit-2	6/29/18; 01:12	9/1/18; 00:00	Stator Earth Fault	1.74	17.33	19.07
5	Ghatghar Unit-2	9/1/18; 00:00	12/17/18; 12:20	Stator Earth Fault	8.08	29.14	37.22
	Total				21.66	167.81	189.47

FY 2019-20 & FY 2020-21							
Sr. No.	Name	Trip Date	Synchronisation Date	No. of Days of Tripping	Deducted Lease Rent (Rs. Cr.)	Deducted Fixed Cost (Rs. Cr.)	Total (Rs. Cr.)
1	Ghatghar Unit-1	13-08-2019	09-09-2019	27	7.03	2.12	9.15
2	Ghatghar Unit-1	25-09-2019	08-02-2020	136	34.18	11.14	45.31
3	Ghatghar Unit-2	18-02-2020	26-02-2020	8	2.08	0.63	2.71
4	Ghatghar Unit-1	18-02-2020	31-03-2020	42	10.94	3.29	14.23
		01-04-2020	26-08-2020	147	36.94	12.04	48.98
5	Ghatghar Unit-2	09-03-2020	31-03-2020	22	5.73	1.72	7.45
		01-04-2020	30-08-2020	151	37.94	12.37	50.31

FY 2019-20 & FY 2020-21							
Sr. No.	Name	Trip Date	Synchronisation Date	No. of Days of Tripping	Deducted Lease Rent (Rs. Cr.)	Deducted Fixed Cost (Rs. Cr.)	Total (Rs. Cr.)
6	Ghatghar Unit-1	27-08-2020	06-09-2020	10	2.51	0.82	3.33
	Total				137.36	44.12	181.48

7.6.2.4 Petitioner submits the factual reasons behind the lower availability of the Ghatghar PSS below.

Major events and reasons for failure:

7.6.2.5 The Petitioner has provided a detailed account of the events and the efforts undertaken to MSEDCL through letters dated 04.05.2019, 15.12.2020, and 12.03.2021, which are annexed as Annexure- 20. The specific incidents mentioned in MSEDCL's letter occurred for the first time since the units were handed over to MSPGCL. The necessary spare parts for the equipment had to be imported, as the Petitioner is reliant on the Original Equipment Manufacturer (OEM) for these components.

- **Stator Earth Fault events** – As per MSPGCL analysis, this event was caused primarily due to residual mud depositions during the 2005 flooding event and subsequent weakening of stator windings due to continuously overloaded operations. This fault requires long outage for restoration of the stator windings.
- **Common pressure shaft event** – The two units of the Ghatghar HPS are run by common facilities like, Common penstock, common static frequency convertor, common PLC system. If any issue arises in the common facility, both units become inoperative.
- **RBDV (Runner Band Drain Valve) leakage event** – The RBDV is on the main hydro system, in order to attend to any leakage event on this valve, the pressure shaft needed to be drained. Draining of the pressure shaft led to the outage of both the units. It is to state here that all main valves on hydro system are custom made and are unique, stand alone in its design. While handing/taking over of project, WRD Govt. of Maharashtra has not handed over spares of any valves or valve as such. It is therefore very difficult to repair such valve in case of breakage of spares of valves. These spares are not readily available in the market and needs to be manufactured from local market. This is the main reason for delay.

Efforts taken by MSPGCL:

- 7.6.2.6 The Petitioner submits that the spares for certain valves were not readily available, necessitating their development from local vendors. Due to the absence of technical drawings with MSPGCL, these spares were manufactured based on available samples.
- 7.6.2.7 Additionally, during the occurrence of the "G/M link fault"—a fault indicative of a communication failure between PLCs in a ring topology—MSPGCL contacted M/s Fuji Electric Japan for service, as the PLC is proprietary to them. However, due to the preoccupation of their engineers, M/s Fuji Electric Japan informed that they could provide services only after a delay of three months. Consequently, MSPGCL engineers resolved the issue using their own expertise, in the absence of any technical drawings or standard operating procedures. The Petitioner respectfully submits that the outages were caused by unforeseen and uncontrollable circumstances, which are beyond the control of MSPGCL.

Facts regarding overloading of the system and non-availability of adequate breathing period for proper routine maintenance of the units:

- 7.6.2.8 As Ghatghar HPS is a pump storage power station which operates mainly in two modes –
- 1) Generation Mode (Utilizing water stored in the upper dam to rotate the turbine-generator),
 - 2) Pumping Mode (Pumping water from the lower dam back to the upper dam using grid energy).
- 7.6.2.9 As per submission by WRD, in case No.2 of 2012 (MERC order dated 27.12.2012), the Ghatghar PSS scheme is intended to operate on a weekly cycle, generating for six peak hours daily from Monday to Saturday, with exclusive pumping operations on Sundays. The plant is designed and manufactured according to this principle. However, the operational practices have deviated from the intended design, as follows:
- Units are being operated for excess hours in both Generation and Pumping modes
 - On Sundays, units are operated in Generation Mode, contrary to the design principle of limiting Sunday operations to pumping.
- 7.6.2.10 These deviations have resulted in several operational challenges, including:
- Excessive generation and pumping hours, leading to increased wear and tear, overloading, overheating, and frequent breakdowns of the machinery, as well as insufficient time for routine maintenance.
 - Increased forced shutdown hours due to the additional generation operations on Sundays.

- The station's critical role in grid security, as emphasized by the SLDC Airoli, requires 100% availability, which further limits the opportunity for planned preventive maintenance of the plant's auxiliaries.
- The plant's equipment, supplied by M/s Fuji Japan, involves auxiliaries of Japanese origin, leading to extended delivery periods for replacement parts.

Benefits availed by MSEDCL during availability of the units:

- 7.6.2.11 The Ghatghar units are consistently maintained in a hot-standby state to ensure grid stability during periods of high demand and low frequency, necessitating operations beyond the originally envisaged period. MSEDCL has benefited from power generation at Ghatghar HPS, both by achieving grid stability and through commercial gains in the open market. However, the Petitioner has not been involved in the settlement mechanism and, as such, has not received any benefits from these operations.

Provisions in PPA regarding Disputed Bill:

- 7.6.2.12 The clauses which refer to the Disputed Bill in PPA are provided below:

“7.2 Disputed Bill:

7.2.1 The bill(s) of MAHAGENCO shall be paid by MAHAVITARAN is full subject to the condition that:

(a) there is no apparent arithmetical error in the bill(s)

(b) the bill(s) is/are claimed as per the approved tariff

(c) they are in accordance with the joint monthly meter reading as in Article 6.4

7.2.2 If MAHAVITARAN has any disagreement with the bill(s) raised, they shall file a written objection with MAHAGENCO within 15 days of presentation of the bill(s) giving following particulars:

(a) item disputed, with full details/data and reasons of dispute and

(b) amount disputed against each item

7.2.3 MAHAGENCO shall resolve the above dispute with MAHAVITARAN as soon as possible preferably within 30 days of receipt of such objection from MAHAVITARAN. In case the dispute is not resolved, such a bill is to be treated as a “disputed bill” and the matter shall be referred to dispute resolution mechanism as provided in Article 15.

7.2.4 Notwithstanding any dispute as to all or any portion of a Bill submitted by MAHAGENCO to MAHAVITARAN, MAHAVITARAN shall pay the 95% (ninety-five percent) amount of the Bill provided that the amount of the Bill is based on a joint meter reading and that the Tariff as determined by the Commission.

7.2.5 The amount of excess/shortfall with respect to the said 95% payment based on the final award of arbitration shall be paid/adjusted with interest at the rate of SBI PLR from the date on which the amount in dispute was payable."

- 7.6.2.13 Petitioner submits that MSEDCL's action of deducting O&M charges and lease rent for the Ghatghar PSS is in violation of the terms outlined in the Power Purchase Agreement (PPA) and constitutes a unilateral action. According to Clause 7.2.4 of the PPA, MSEDCL is obligated to pay 95% of the bill amount regardless of any dispute concerning any portion of the bill.
- 7.6.2.14 Petitioner has formally requested MSEDCL to make full payment of the relevant bills via letter dated May 4, 2019. In this communication, the Petitioner stated that if the bills are not paid in full, the event will be considered as "payment outstanding," and a Late Payment Surcharge will be levied in accordance with the provisions under Clause 7.2 of the PPA.
- 7.6.2.15 Furthermore, the Petitioner submits that in the MTR Order (Case no. 227 of 2022) dated 31.03.2023, the Hon'ble Commission observed that the deduction of AFC (Rs. Rs. 44.12 Cr.) and lease rent (Rs. 137.6 Cr.) amounting to Rs, 181.48 Cr., for the Ghatghar PSS for the period from August 2019 to September 2020 by MSEDCL, as a billing issue. Moreover, the Hon'ble Commission noted that this matter and commented that it is a billing issue between the companies.

Submission of the Petitioner:

- 7.6.2.16 As per the latest communication from MSEDCL, the Petitioner submits that MSEDCL has agreed to pay the deducted AFC and lease rent charges Rs.181.48 Crore for FY 2019-20 and FY 2020-21 to MSPGCL, as it is allowed in ARR of the Petitioner and it has passed on by MSEDCL to the end consumers in the true up of respective years. However, similar consideration is not done for the deductions carried out for FY 2017-18 and FY 2018-19.
- 7.6.2.17 In light of the difficulties faced by the Petitioner, the efforts taken to resolve the issue, and the benefits availed by MSEDCL during the availability of the units, the Petitioner respectfully submits that the unilateral deduction of Rs. 189.47 Crore by MSEDCL is inappropriate. Therefore, the Petitioner requests the Hon'ble Commission to direct MSEDCL to recover the deducted O&M charges (Rs. 21.66 Crore) and lease rent charges (Rs. 167.81 Crore) for the periods FY 2017-18 and 2018-19 from the consumers. The Petitioner further submits that this issue of deducting O&M and lease rent charges (totalling Rs. 189.47 Crore) is similar to the issue of deducting Rs. 181.48 Crore mentioned in the previous Tariff Order, Case No. 227 of 2022, which MSEDCL agreed to pay.
- 7.6.2.18 The Petitioner respectfully submits that the Rs. 189.47 Crore deducted by MSEDCL was approved by the Hon'ble Commission in MSPGCL's ARR. However, MSEDCL has now refused to pay, stating that it has deducted the amount and not passed it on to or recovered it from the end consumers. In light of this, the

Petitioner requests the Hon'ble Commission to direct MSEDCL to recover this amount from its end consumers and to make the payment to the Petitioner.

7.6.3 Issue related to installation of Class "0.2S" Current Transformers (CTs) and Voltage Transformers (VTs) at the <G> to <T> interface points for accurate measurement of active energy

- 7.6.3.1 Under the Part H of the State Grid Code, 2020, the Metering Code is provided, which prescribes a uniform policy in respect of electricity metering in the InSTS and provide the minimum requirements and standards for installation and operation of meters for commercial and operational purpose for the STU, Transmission Licensees, and Users connected to InSTS.
- 7.6.3.2 The Metering Code provides that all interface meters installed at the points of interconnection with InSTS excluding meters installed at the points of interconnection with Inter-State Transmission System (ISTS) for the purpose of electricity accounting and billing shall be owned by STU and are to be installed by STU.
- 7.6.3.3 The Clause 78.1.11 of the State Grid Code, 2020 provides following regarding the Accuracy Class for the energy meters and associated Current Transformers (CTs) and Voltage Transformers (VTs)

78.1.11. Accuracy Class:

The specification of the main meters and check meters for interface points, meters for energy accounting, and standby meters is given in Table-2 as below:

Table 2: Specification of Main and Check Meters for Interface Point meters

Sr.	Parameter	Standards
1	Standard Reference Voltage	As per IS
2	Voltage Range	The meter shall work satisfactorily on 110 Volts AC (Line-Line) with voltage variation range as per IS
3	Standard Frequency	The meter shall work satisfactorily on 50 Hz with variation range of -5% to +5%.
4	Standard Basic Current	As per IS (Current range of consumer meters shall be so chosen as to record the load current corresponding to the sanctioned load)
5	Accuracy Class*	Meters shall meet the following requirements of Accuracy Class: Interface meters - 0.2S(active) - 0.5S (reactive)
6	Starting Current and Maximum Current	As per IS
7	Power Factor Range	The meter shall work satisfactorily over a power factor range of zero lag to unity to zero lead
8	Power Frequency Withstand Voltage	As per IS
9	Impulse Voltage Withstand Test for 1.2/50 micro sec	As per IS
10	Power Consumption	As per IS

* All Interface meters should have accuracy class of 0.2S.

* The accuracy class of Current Transformers (CTs) and Voltage Transformers (VTs) shall not be inferior to that of associated meters. The existing CTs and VTs not complying with this Code shall be replaced with new CTs and VTs by STU. In case the CTs and VTs of the same Accuracy Class as that of meters cannot be accommodated in the metering cubicle or panel due to space constraints, the CTs and VTs of the next lower Accuracy Class can be installed till it is replaced with CTS and VTs of appropriate accuracy class by STU.

7.6.3.4 The clause 80 of the State Grid Code, 2020 provides following regarding Right to access to metering data

“80. Rights of access to metering data

80.1 Authorized representatives of the following entities shall be entitled to have access to the metering data from the metering installed:

- a) STU is responsible for the metering installation;*
- b) The State Load Dispatch Centre;*
- c) The State Transmission Utility;*
- d) The consumer of electricity or the generator of electricity at the metering installation as the case may be;*
- e) Any other person who has an authorization from persons at S. No. a, b & c or from Commission; and*
- f) The Commission.”*

-
- 7.6.3.5 Thus, as per the above-mentioned provisions under State Grid Code, 2020, it is the responsibility of STU to install energy meters of Class 0.2S accuracy along with Current Transformers (CTs) and Voltage Transformers (VTs) also of same or higher class to measure active energy at interface points.
- 7.6.3.6 The petitioner submits that though the energy meters, of requisite accuracy class as per the specifications given under Clause 78.1.11, at the <G> to <T> interface points for all the thermal power stations of the Petitioner are installed by STU, the CTs and VT at many of the interface points are of inferior class (Class 0.2) instead of Class 0.2S. This leads to significant deviation in actual energy measurement.
- 7.6.3.7 While the accuracy at 100% and 120% rated current is identical for both classes (+ / - 0.2%), the 0.2S class maintains much tighter ratio error limits at lower current levels (+ / - 0.2% between 120% to 20%) whereas for Class 0.2 the error limit at 20% current level rises to + / - 0.35% from + / - 0.2% at 100% current level. It indicates that the CT ratio of the measuring CT plays a significant role in maintaining the accuracy of energy measurements. The primary current rating of the CT should be nearest to the nominal primary current of the circuit.
- 7.6.3.8 The 0.2S class CT with proper ratio thus offers superior accuracy over a wider range of current levels, making it ideal for applications where precise measurement is critical. The 0.2S class, with its stringent accuracy requirements across a broader range of current levels, ensures higher reliability and precision.
- 7.6.3.9 Such significant reduction in sent out generation measurement results in following adverse implications for generating company:
- lower revenue recovery due to lower sent out measurement,
 - apparently higher computation of auxiliary consumption (in MUs as well as in % terms), which again results in disallowance on account of % auxiliary consumption remaining higher than norm
 - with consideration of such apparently higher auxiliary consumption, the declaration of capacity is done on correspondingly lower side resulting in computation of lower plant availability factor and thus disallowance of fixed charges.
- 7.6.3.10 This issue surfaced initially at Koradi Units # 8 to 10 and continuous follow up was made with STU / local MSETCL authorities. Subsequently, the Petitioner has repeatedly raised the issue to STU and has requested to replace the Class 0.2 CTs / VTs with the dedicated 0.2S CTs and VTs connected to the dedicated energy meter to be located nearest to CT/PT installation.
- 7.6.3.11 However, as of now, STU has carried out replacement of CTs /VTs only at installed at Chandrapur Unit-8&9, Koradi-3x660, Khaperkheda Unit-1,2,4, Paras Unit-3&4, Parli Unit-6,7&8 at 220/400 KV Switchyards by MSETCL.
- 7.6.3.12 The 0.2s class CTs/VTs are yet to be installed at Bhusawal Unit-3,4&5, Chandrapur Unit-3to7, Koradi Unit-6, Khaperkheda Unit-3&5, Nashik Unit-3to5 at 220/400 KV Switchyards by MSETCL.
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- 7.6.3.13 The respective TPS has done correspondence with concerned Chief Engineers of MSETCL offices and the matter is also taken at Corporate level by MSPGCL higher authorities with MSETCL higher authorities for expediting the installation of The 0.2s class CT/VT.
- 7.6.3.14 As a result of rigorous follow up, the CTs at Koradi Units # 8 to 10 were replaced during FY 2023-24. (on 19.12.2023 at Koradi Unit # 8, on 12.03.2024 at Koradi Unit # 9 and on 21.03.2024 at Koradi Unit # 10. The MoM between MSPGCL and MSETCL for such CT replacement events are attached as Annexure - 21)
- 7.6.3.15 With reference to the above subject, it is further to inform that, after replacement of CTs at Koradi Units # 8 to 10, extensive analysis is carried out for comparison of the GT output measurement with Class 0.2 CTs in earlier period with the GT output measurement with Class 0.2S CTs. For the comparison purpose, the Gross Generation data was taken as reference, as there are no changes in Gross generation measurement. With a certain gross generation in a block, the Generator Transformer output energy is measured by with two different CTs/energy meters and is compared. Based on comparison, unit wise and day wise data is fetched and the difference in energy export for unit 8, 9 and 10 is calculated and categorised for each 10 MW interval as tabulated below.

Table 69: Difference in energy export for Unit 8.9 & 10

UNIT 08			UNIT 09			UNIT 10		
From	To	Difference in MW	From	To	Difference in MW	From	To	Difference in MW
0	10	0	0	10	0	0	10	0
10	20	0	10	20	0	10	20	0
20	30	0	20	30	1	20	30	2
30	40	0	30	40	1	30	40	3
40	50	0	40	50	1	40	50	3
50	60	0	50	60	1	50	60	3
60	70	0	60	70	1	60	70	3
70	80	0	70	80	1	70	80	3
80	90	0	80	90	1	80	90	3
90	100	0	90	100	1	90	100	3
100	110	0	100	110	1	100	110	3
110	120	0	110	120	1	110	120	4
120	130	0	120	130	2	120	130	4
130	140	0	130	140	2	130	140	4
140	150	0	140	150	3	140	150	4
150	160	0	150	160	3	150	160	4
160	170	0	160	170	3	160	170	4
170	180	0	170	180	3	170	180	4

UNIT 08			UNIT 09			UNIT 10		
From	To	Difference in MW	From	To	Difference in MW	From	To	Difference in MW
180	190	0	180	190	3	180	190	5
190	200	0	190	200	3	190	200	5
200	210	0	200	210	3	200	210	5
210	220	0	210	220	3	210	220	6
220	230	0	220	230	3	220	230	6
230	240	0	230	240	3	230	240	6
240	250	0	240	250	3	240	250	6
250	260	0	250	260	3	250	260	6
260	270	0	260	270	3	260	270	6
270	280	0	270	280	5	270	280	6
280	290	0	280	290	5	280	290	6
290	300	0	290	300	5	290	300	6
300	310	0	300	310	5	300	310	6
310	320	0	310	320	5	310	320	6
320	330	0	320	330	5	320	330	6
330	340	0	330	340	5	330	340	7
340	350	0	340	350	5	340	350	7
350	360	1	350	360	5	350	360	7
360	370	1	360	370	6	360	370	7
370	380	1	370	380	6	370	380	7
380	390	1	380	390	6	380	390	8
390	400	1	390	400	6	390	400	8
400	410	1	400	410	6	400	410	8
410	420	1	410	420	6	410	420	8
420	430	1	420	430	6	420	430	8
430	440	1	430	440	6	430	440	8
440	450	1	440	450	6	440	450	8
450	460	1	450	460	6	450	460	8
460	470	1	460	470	6	460	470	8
470	480	1	470	480	7	470	480	8
480	490	1	480	490	7	480	490	9
490	500	1	490	500	7	490	500	9
500	510	2	500	510	8	500	510	9
510	520	2	510	520	8	510	520	9
520	530	2	520	530	8	520	530	9
530	540	2	530	540	8	530	540	9
540	550	2	540	550	8	540	550	10

UNIT 08			UNIT 09			UNIT 10		
From	To	Difference in MW	From	To	Difference in MW	From	To	Difference in MW
550	560	2	550	560	9	550	560	10
560	570	2	560	570	9	560	570	10
570	580	3	570	580	9	570	580	10
580	590	3	580	590	9	580	590	10
590	600	3	590	600	9	590	600	10
600	610	3	600	610	9	600	610	10
610	620	4	610	620	9	610	620	10
620	630	4	620	630	9	620	630	10
630	640	4	630	640	9	630	640	10
640	650	4	640	650	9	640	650	10
650	660	4	650	660	9	650	660	10

7.6.3.16 As explained earlier, the error in measurement of Gt output has resulted in apparent increase in computation of auxiliary consumption and also in lower declaration of capacity leading to computation of lower Availability factor. The corresponding deviations on the basis of above-mentioned master table, in net sent out energy is calculated to finalise the recovery in respect of deemed Auxiliary Power consumption and deemed MERC AVF since commissioning as tabulated below.

Table 70: Difference in net energy due to deemed Auxiliary Power Consumption and AVF

FY	APC (%)		Difference	MERC AVF (%)		Difference
	Old	Deemed Impact		Old	Deemed Impact	
FY 2015-16	7.77	7.43	0.33	63.06	63.08	0.01
FY 2016-17	7.34	6.74	0.61	52.41	52.58	0.17
FY 2017-18	7.63	6.52	1.12	53.55	54.16	0.61
FY 2018-19	8.45	7.31	1.14	46.67	47.22	0.56
FY 2019-20	8.11	6.97	1.15	53.76	54.39	0.63
FY 2020-21	8.1	7.04	1.06	65.8	66.31	0.51
FY-2021-22(01.04.21) to (10.10.21)	8.43	7.31	1.13	53.71	54.04	0.34
FY-2021-22 (11.10.21) to (31.03.22)	6.78	5.64	1.14	73.42	73.84	0.42
FY 2022-23	7.34	6.22	1.12	63.76	64.51	0.76
FY 2023-24	7.28	6.26	1.01	68.23	68.96	0.73

7.6.3.17 As the increased auxiliary consumption % and reduced Availability factor results in cost disallowances, the estimated disallowances on account of non-availability of Class 0.2S CTs for Koradi Units # 8 to 10 during the period since COD of the units is calculated as below.

FY	APC Recovery (Cr)	AVF Recovery (Cr)	Total (Cr)
FY 2015-16	0.25	0.1	0.35
FY 2016-17	6.45	3.67	10.12
FY 2017-18	24.77	15.83	40.6
FY 2018-19	22.83	16.45	39.28
FY 2019-20	30.38	18.27	48.66
FY 2020-21	22.01	13.42	35.43
FY 2021-22 (01.04.21) to (10.10.21)	13.81	8.68	22.49
FY 2021-22 (11.10.21) to (31.03.22)	17.02	10.35	27.38
FY 2022-23	30.53	18.64	49.17
FY 2023-24	36.13	19.07	55.19
Total	204.19	124.48	328.67

7.6.3.18 Considering the significant disallowances faced by MSPGCL on account of non-availability of Class 0.2S CTs, MSPGCL requests Hon'ble Commission to issue necessary directions to State Transmission Utility (STU) to expedite actions for installation of "Class 0.2 S" CTs at all interface points and also to provide access to metered data for the AMR meters installed for better monitoring & control of generation output in reference to the Scheduled generation , as per Clause 80 of State Grid Code, 2020.

7.6.3.19 The location of VT plays a vital role for accurate measurement of injected power. During lagging MVAR sharing, GT terminal voltage (HV) is always more than the bus voltage (reactive power flows from higher magnitude voltage level to lower voltage level). When selected bus VT voltage is used for power measurement which is lower than the actual injection point voltage (GT terminal), amount of power/energy measured in such case is less than the actual injected power/energy. To avoid this error, the location of VT should be at injection point. Accordingly, it is requested to direct STU for installation of VTs at injection point.

7.6.3.20 Considering the significant disallowances faced during the period FY 2015-16 to FY 2023-24, (apprx. Rs. 328.67 Cr.), MSPGCL requests Hon'ble Commission to consider the above submission and allow the claim towards loss of opportunity due to lower measurement of net sent out generation & resultant higher %

Auxiliary Consumption and lower Plant Availability Factor for Koradi Units # 8 to 10.

7.7 Net True up for FY 2022-23

- 7.7.1.1 The net True up amount for FY 2022-23, considering the Expense side summary (after sharing of gains and losses and AFC disallowance due to lower availability) and Revenue side summary is provided in the table below:

Table 71: Net True up summary for FY 2022-23 (Rs Crore)

Particulars	Amount
Expense Side Summary (A)	29,882.99
Revenue from sale of power	26,976.20
Loss of revenue due to higher auxiliary cons.	64.74
Revenue Side Summary (B)	27,040.95
Gross True up amount - Gap/(Surplus (A-B))	2,842.04
Revenue Gap/(Surplus) approved in MTR Order	-1,031.72
Net Revenue Gap/(Surplus) to be approved after final true-up	3,873.76

- 7.7.1.2 The Petitioner requests the Hon'ble Commission to approve the true up as submitted by the Petitioner. The carrying cost on the aforementioned true-up of Gap/surplus has been worked out towards the end of the true-up sections.

8 Truing up for FY 2023-24

8.1 Operational Performance of the stations

8.1.1 AVF and PLF

8.1.1.1 The overall actual AVF and PLF of the stations for FY 2023-24 is provided in the table below. As may be observed, the AVF of Nashik Unit 3-5, Paras Unit 3-4, Parli Unit 6-7, Khaperkheda Unit 5, Bhusawal Unit 4-5 and Chandrapur Unit 8-9 have been more than 80% in FY 2023-24. However, the PLF has been on the lower side for most of the stations. Relevant certifications in this regard from MSLDC for 2023-24 is enclosed as **Annexure - 22**.

Table 72: Actual Vs Approved Availability and PLF of Stations (FY 2023-24)

Station	Availability						PLF	
	Normative	Overall	High Demand season		Low Demand season			
		Actual	Peak AVF	Off-Peak AVF	Peak AVF	Off-Peak AVF	Normative	Actual
Bhusawal Unit 3	80.00%	62.078%	78.91%	79.52%	56.25%	56.26%	85.00%	54.809
Chandrapur Units 3 -7	80.00%	57.266%	75.63%	74.98%	51.03%	51.33%	85.00%	52.267
Khaperkheda Units 1-4	85.00%	65.537%	73.65%	73.70%	63.08%	62.75%	85.00%	62.739
Koradi Unit 6	72.00%	75.513%	77.28%	76.85%	74.88%	75.08%	85.00%	74.706
Nashik Units 3-5	80.00%	81.204%	83.00%	83.53%	80.66%	80.41%	85.00%	46.585
Uran	85.00%	34.820%	35.09%	36.93%	33.67%	34.32%	85.00%	30.228
Paras Units 3-4	85.00%	83.050%	86.36%	86.48%	82.33%	81.82%	85.00%	81.390
Parli Units 6-7	85.00%	89.428%	86.99%	86.75%	89.96%	90.38%	85.00%	62.481
Khaperkheda 5	85.00%	83.704%	82.24%	83.03%	84.82%	83.81%	85.00%	81.735
Bhusawal 4-5	85.00%	81.130%	79.59%	77.73%	82.61%	82.08%	85.00%	74.313
Koradi 8-10	85.00%	68.414%	66.44%	65.73%	69.64%	69.20%	85.00%	67.022
Chandrapur 8-9	85.00%	86.002%	86.86%	86.36%	86.35%	85.76%	85.00%	82.265
Parli 8	85.00%	74.302%	77.10%	78.32%	72.75%	73.07%	85.00%	56.691

8.1.1.2 The key reasons for lower AVF are summarised below:

- **Lower gas availability in Uran** - As against the requirement of 3.5 MMSCMD, the supply was barely around 1.31 MMSCMD in FY 2023-24. Accordingly, the AVF of the station was lower, even though the machines were available. The main reason for the low availability of the Uran station was the reduced gas supply, which was beyond the Petitioner's control. The Petitioner has made every effort to utilize the available gas in optimized manner so that maximum possible generation is delivered. The table below illustrates the gas availability, achievable generation from the gas received at GTPS and the actual generation achieved, demonstrating that the Petitioner has optimally utilized the available gas supply.

Table 73: Details of Gas availability, achievable generation and actual generation of Uran plant

Month	APM DNQ	Actual total Gas Consumption	Actual Generation in respect of consumption	CV	Heat Input (DNQ x cv)	Operational Heat rate	Possible Generation with DNQ (Heat Input/Operative Heat Rate)
Unit	MMSCM	MMSCM	MU	kCal/sm3	MkCal	kCal/kwh	MU
Apr-23	50.18	25.82	100.33	8812	4,42,164	2268	194.98
May-23	40.45	39.99	163.05	8807	3,56,206	2160	164.93
Jun-23	29.02	28.94	114.92	8796	2,55,260	2215	115.25
Jul-23	1.32	0.62	1.44	8731	11,504	3752	3.07
Aug-23	25.13	24.98	73.53	8782	2,20,721	2984	73.97
Sep-23	37.44	37.34	158.73	8797	3,29,409	2070	159.16
Oct-23	38.89	38.83	162.71	8788	3,41,741	2097	162.94
Nov-23	40.44	40.30	171.35	8807	3,56,163	2072	171.92
Dec-23	52.56	47.28	201.40	8755	4,60,180	2055	223.93
Jan-24	51.38	50.48	212.62	8660	4,44,978	2056	216.43
Feb-24	49.39	47.19	197.64	8666	4,27,971	2069	206.85
Mar-24	64.45	50.60	211.32	8636	5,56,575	2071	268.76
Total	480.64	432.37	1,769.03	8746	42,03,600	2138	1,966.53

Actual consumption of gas for FY 2023-24 is 89.96% of total allocated DNQ. Actual generation is 95.2% of the achievable generation using received gas quantity & at normative SHR for combined cycle operation. However, due to major accident incidence in Block 1 (GT 5, GT 6 + WHR A0), only one block (GT 7 + GT 8 + WHR B0) was available for combined cycle operation and the GT 5 & GT 6 were available in open cycle. So actual overall SHR was higher.

- **Coal Related Issues** - The overall generation loss due to supercritical coal stock and inferior coal quality was around 6.62%. Besides, the inferior quality of coal and issues with coal containing high moisture content also has significant impact of around ~3% in generation loss. The impact was largely noticed during the monsoon months.

- 8.1.1.3 The Petitioner respectfully submits that Nashik Units 3 to 5, Chandrapur Units 8-9, Parali Units 6-7, and Koradi Unit 6 have maintained peak and off-peak availability during both high-demand and low-demand periods. However, Bhusawal Unit 3 and Khaperkheda Unit 5 narrowly missed achieving normative availability due to lower coal quality. For other stations, the reduced availability was primarily attributed to factors such as inferior coal quality, recurring issues like boiler tube leakages, and problems within the coal handling system.
- 8.1.1.4 Furthermore, the Petitioner respectfully submits before the Hon'ble Commission to consider and approve the target availability as recommended in the CPRI Energy Audit reports for Khaperkheda Units 1 to 4. The normative availability approved by the Hon'ble Commission for Khaperkheda Units 1 to 4 is higher than the achievable availability. It leads to under recovery of AFC due to shortfall of availability in comparison with normative availability. Further, the Petitioner most respectfully submits that the norm of AVF approved by the Hon'ble Commission is higher and it is not achievable, while the actual availability of the station is comparable with the AVF recommended in the CPRI report. In light of this, the Petitioner humbly requests the Hon'ble Commission to consider these recommendations during its deliberations and allow the appropriate recovery of AFC under True-up.
- 8.1.1.5 Additionally, the Petitioner requests the Hon'ble Commission to relax the Target availability factor for Uran GTPS equal to the actual availability. As the actual availability factor (34.82%) is lower than the target availability factor, on account of non-availability of adequate gas supply. Therefore, the Petitioner respectfully requests the Hon'ble Commission to treat the actual availability as equivalent to normative availability and allow the full recovery of the fixed costs for the Uran station.
- 8.1.1.6 The station wise reason for lower availability provided in **Annexure- 14** along with this Petition.

8.1.2 Station Heat Rate:

8.1.2.1 The station wise normative SHR vis-à-vis actual SHR for FY 2023-24 is shown in below table.

Table 74: SHR of MSPGCL Stations in 2023-24 (kCal/kWh)

Station	Approved	Actual
Bhusawal Unit 3	2,787	2,899
Chandrapur Units 3 -7	2,688	2,705
Khaperkheda Units 1-4	2,630	2,788
Koradi Unit 6	2,456	2,518
Nashik Units 3-5	2,754	2,782
Uran - Open Cycle	2,900	3,343
Uran - Combined Cycle	2,035	2,090
Paras Units 3-4	2,430	2,417
Parli Units 6-7	2,430	2,452
Khaperkheda Unit 5	2,375	2,451
Bhusawal Units 4-5	2,375	2,464
Koradi Units 8-10	2,230	2,400
Chandrapur Units 8-9	2,375	2,373
Parli Unit 8	2,430	2,441

8.1.2.2 As it may be observed the Station Heat Rate of most of the stations have exceeded the norms on the account of frequent start-ups and shut downs, and due to lower system demand. For Uran, SHR mainly depends on the mode of operation i.e., open cycle operations and the lower availability of gas impacts the GSHR. Uran has total capacity 672 MW comprising of 4 x 108 MW (GT-5, GT-6, GT7 & GT-8) units and 2 x 120 MW (A0 & B0). While the GTs can be operated individually in open cycle, to achieve optimal generation at optimal efficiency, the entire plant have to normally runs on combined cycle operations i.e., A0 block along with GT-5 & GT-6 and B0 block along with GT-7 & GT-8. In absence of a GT amongst the combination, one GT can be operated with the Waste Heat Recovery Unit (WHR), however this results in partial load operation which has its obvious effects on plant efficiency.

8.1.2.3 To run all units of Uran, the gas requirement is 3.5 MMSCMD. However, annual gas availability during FY 2023-24 was barely 1.31 MMSCMD. Due to limited gas availability, the steam turbines at GTPS Uran were often operated in a 1GT-1ST combination. Operating a steam turbine with a single gas turbine significantly increases the heat rate. Additionally, the low gas availability has led to increased withdrawal and cycling of the machines, with a higher number of machine synchronizations further raising the heat rate.

8.1.2.4 GT-5&6 were on open cycle mode throughout the year and GT7&8 were also in open cycle mode from 24.06.2023 to 28.08.2023. There was no continuous schedule to these open cycle units due to the high MOD rate and these units were synchronized/withdrawn according to the demand of LD Kalwa and also considering the actual gas availability. Due to these factors there were increased synchronization/withdrawals which resulted in high heat rate. Also, the gas turbines of GTPS Uran are 39 years old and Steam turbines are 30 years old. As

the useful life of the plant has been passed by, the heat rate norms may not be achievable.

- 8.1.2.5 As per MERC (MYT) Regulations 2019, norm of SHR for combined cycle and open cycle approved of 2035 kCal/kWh and 2900 kCal/kWh respectively and norm of Auxiliary consumption for combined cycle and open cycle is 3.1% and 1% respectively. The actual SHR of Uran station was 2090 kCal/kWh and 3343 kCal/kWh for combined cycle and open cycle respectively. The deviations in SHR are mainly on account of partial load operations. During last few years, GT-7 was under shutdown due to failure of turbine blades. Due to non-availability of GT-7, the WHR B0 block is continuously running with half load along with GT-8 unit. This partial load operation results in higher GSHR and higher AEC.
- 8.1.2.6 The actual overall GSHR of Uran station was 2138 kcal/kWh, which was achieved during a mix of operational combinations of the GTs and WHR units. The deviations in SHR are mainly on account of partial load operations. During last few years, GT-7 was under shutdown due to failure of turbine blades. Due to non-availability of GT-7, the WHR B0 block is continuously running with half load along with GT-8 unit. This partial load operation results in higher GSHR and higher AEC.
- 8.1.2.7 The segregation of generation through combined cycle operations and open cycle operation is as below.

Actual Net generation MUs				
		Open cycle	Combined cycle	Total
FY 2023-24	Mus	66.51	1702.522	1769.033
	% of total	3.76%	96.24%	

- 8.1.2.8 Considering normative SHR of 2035 kcal/kWh for combined cycle operation and 2900 kcal/kg for open cycle operation, the weighted average normative SHR for the actual operated capacity combination is 2067.5 kcal/kg.
- 8.1.2.9 In light of above, the Petitioner requests the Hon'ble Commission to relax the normative GSHR of Uran station to actual level and allow the fuel cost accordingly.
- 8.1.2.10 With reference to the SHR of Koradi 6, the Petitioner submits that the guaranteed SHR for the unit is 2350 kCal/kWh has been approved by the Hon'ble Commission as normative SHR. The Petitioner submits that even for the new generating stations, an allowance of 4.5% from the design SHR is allowed in order to factor local operating conditions, seasonal impact and degradation and deviations in overall quality of coal and associated parameters. Accordingly, it is requested that the normative SHR may kindly be considered as $2350 \times 1.045 = 2456$ kCal/kWh.
- 8.1.2.11 Actual SHR is higher than the normative SHR in almost all the stations as shown in above table, except SHR of Paras Units 3-4 and Chandrapur Units 8-9 and which is lower than the norm. The SHR of the stations is higher than the norm

mainly because of the partial loading, higher oil consumption and inferior quality of coal. The detail reasoning for the station wise higher SHR is provided in Annexure - 14.

8.1.3 Secondary Oil Consumption (SFOC):

8.1.3.1 The station wise normative SFOC vis-à-vis actual SFOC for FY 2023-24 is shown in below table.

Table 75: SFOC in MSPGCL's stations for FY 2023-24

Particulars	Norm	Actual
	ml/kwh	ml/kwh
Bhusawal Unit 3	1.40	3.61
Chandrapur Units 3 -7	1.00	1.98
Khaperkheda Units 1-4	1.20	2.53
Koradi Unit 6	2.81	2.80
Nashik Units 3-5	1.00	1.72
Paras Units 3-4	0.50	0.48
Parli Units 6-7	0.50	2.06
Khaperkheda Unit 5	0.50	0.35
Bhusawal Units 4-5	0.50	0.98
Koradi Units 8-10	0.50	0.77
Chandrapur Units 8-9	0.50	0.32
Parli Unit 8	0.50	1.22

8.1.3.2 The Petitioner submits that the Koradi Unit 6, Paras Units 3-4, Khaperkheda Unit 5 and Chandrapur Units 8&9 units which performed consistently in FY 2023-24, wherein the actual oil consumption was lower than the norms. The higher oil consumption in the balance units was on account of frequent backing down, shut down, start-ups and partial loading.

8.1.3.3 The Petitioner also submits that on account of lower PLF of the units, the oil consumption was on a higher side in order to keep the boiler flame stable to avoid tripping.

8.1.3.4 The detail reasoning for the station wise higher SFOC than the norm is provided in Annexure - 14.

8.1.4 Auxiliary Consumption:

8.1.4.1 The actual auxiliary consumption of MSPGCL's stations in FY 2023-24 vis-à-vis the norms are provided in the table below.

Table 76: Auxiliary Energy Consumption of MSPGCL's stations in FY 2023-24

	Norm	Actual
Bhusawal Unit 3	10.96%	13.43%
Chandrapur Units 3 -7	9.34%	10.50%
Khaperkheda Units 1-4	10.21%	10.99%
Koradi Unit 6	10.81%	11.48%
Nashik Units 3-5	10.75%	12.55%
Uran - Open Cycle	1.00%	2.74%
Uran - Combined Cycle	3.10%	2.93%
Paras Units 3-4	10.25%	10.48%
Parli Units 6-7	10.25%	11.48%
Khaperkheda Unit 5	6.00%	6.36%
Bhusawal Units 4-5	6.00%	6.81%
Koradi Units 8-10	6.00%	7.28%
Chandrapur Units 8-9	6.00%	6.02%
Parli Unit 8	9.14%	12.14%

- 8.1.4.2 The Petitioner submits that the excess auxiliary consumption beyond the norm was due to partial loading, as well as backing down operations due to inferior coal quality and issues with coal containing high moisture content during the rainy season.
- 8.1.4.3 The Petitioner respectfully submits that, for Paras Units 3-4 and Parli Units 6-7, while comparing the Normative and Actual auxiliary consumption, the actual auxiliary consumption attributable to outages under RSD is not considered.
- 8.1.4.4 **Uran Open Cycle:** The Petitioner respectfully submits that from 24.06.2023 to 28.08.2023, all gas turbine units at GTPS Uran operated exclusively in open cycle mode. During this period, both steam turbines were in shutdown status, leading to an increase in standby consumption from the steam turbine auxiliaries, which was subsequently incorporated into the total auxiliary power consumption of the station. Consequently, due to the operation of the machines in open cycle mode only, the excess consumption of steam turbine auxiliaries contributed to a rise in the open cycle auxiliary power consumption.
- 8.1.4.5 **Uran Combined Cycle:** The Petitioner submits that the GTPS Uran (Combined Cycle) has achieved the norms for Auxiliary Consumption.
- 8.1.4.6 The Petitioner respectfully submits before the Hon'ble Commission to consider and approve the Auxiliary consumption norms as recommended in the CPRI Energy Audit reports for Chandrapur Units 3-7, Paras Units 3-4, Parli Units 6,7 & 8, Khaperkheda Units 1 to 4. The normative Auxiliary energy consumption (AEC) approved by the Hon'ble Commission for aforementioned stations is lower than the actual AEC. The Petitioner most respectfully submits that the norm of AEC approved by the Hon'ble Commission is lower and it is not achievable, while the actual AEC of the station is comparable with the AEC recommended in the CPRI report. In light of this, the Petitioner humbly requests the Hon'ble Commission to consider these recommendations in its deliberations and allow revenue loss/(gain) due to higher energy consumption accordingly under True up.
- 8.1.4.7 The detail reasoning for the station wise higher Auxiliary consumption than the norm approved by the Hon'ble Commission is provided in Annexure - 14.

8.1.5 Transit and handling loss:

- 8.1.5.1 The MERC (MYT) Regulations, 2019 specify the normative transit and handling loss of 0.80% for non-pit head generating stations for domestic coal. The Petitioner has considered the normative transit and handling loss of 0.8% for final true-up of FY 2023-24.
- 8.1.5.2 The actual transit and handling loss achieved during FY 2023-24 is as shown in the table below:

Table 77: Actual Vs Normative transit and handling loss for 2023-24 (%)

Particulars	Norm	Actual
Bhusawal Unit 3	0.80%	1.09%
Chandrapur Units 3 -7	0.80%	0.41%
Khaperkheda Units 1-4	0.80%	2.11%
Koradi Unit 6	0.80%	0.45%
Nashik Units 3-5	0.80%	0.75%
Paras Units 3-4	0.80%	0.79%
Parli Units 6-7	0.00%	0.75%
Khaperkheda Unit 5	0.80%	2.11%
Bhusawal Units 4-5	0.80%	0.99%
Koradi Units 8-10	0.80%	0.10%
Chandrapur Units 8-9	0.80%	0.49%
Parli Unit 8	0.80%	0.11%

8.1.6 Net Generation

- 8.1.6.1 Net generation as approved by Hon'ble Commission in MTR Order and generation net off normative auxiliary consumption (revised normative) and actual net generation during FY 2023-24 is given in the table below.

Table 78: Actual Vs Approved Net Generation in FY 2023-24 (MU)

Particulars	Revised Normative	Actual
Bhusawal Unit 3	904.68	879.62
Chandrapur Units 3 -7	8,194.87	8,089.63
Khaperkheda Units 1-4	4,198.86	4,162.33
Koradi Unit 6	1,238.48	1,229.21
Nashik Units 3-5	2,362.79	2,315.12
Uran	1,717.33	1,717.33
Paras Units 3-4	3,227.39	3,219.24
Parli Units 6-7	2,521.28	2,486.69
Khaperkheda Unit 5	3,375.64	3,362.68
Bhusawal Units 4-5	6,165.64	6,112.35
Koradi Units 8-10	11,103.01	10,951.93
Chandrapur Units 8-9	6,806.12	6,804.82
Parli Unit 8	1,176.63	1,137.77
Total	52,992.72	52,468.72

8.2 Expense side True-up

8.2.1 Background:

- 8.2.1.1 The Petitioner seeks True-up of expenses for the year FY 2023-24 as per the audited accounts or norms as applicable for various heads of expenditure as per the MERC (MYT) Regulations 2019. For the purpose of Truing up, MSPGCL has worked out the expenses that may be allowed on a normative basis. Final entitlement is arrived after considering sharing of gain and losses as per regulation 11 of MERC (MYT) Regulations 2019. However, the Petitioner requests the Hon'ble Commission to provide relaxation on the availability the extent due to shortage of coal and allow recovery of the fixed charges.
- 8.2.1.2 The detailed rationales for True up of the expenses for FY 2023-24 are provided in the subsequent paragraphs.

8.2.2 Variation in GCV "As Billed" and GCV "As Received" basis:

- 8.2.2.1 Despite the Petitioner's request (in foregoing para) to the Hon'ble Commission to permit a GCV variation of at least 750 kcal/kg between the "As Billed" and "As Received" GCV, in view of the sub-judice matter before the Hon'ble APTEL, the Petitioner has calculated its claim for normative fuel costs for FY 2022-23 based on a GCV gap of 650 kcal/kg approved by the Hon'ble Commission in MTR review Order. Additionally, MSPGCL respectfully seeks appropriate relaxations for FY 2023-24 by invoking the provisions of the MERC MYT Regulations, 2019, under the clauses for "Power to Relax" and "Power to Remove Difficulties." The Petitioner requests the Hon'ble Commission to kindly consider these submissions and grant relief as deemed appropriate.
- 8.2.2.2 As elaborated in the truing-up of FY 2022-23 section, the Petitioner submits that the Hon'ble Commission has acknowledged the GCV loss of 750 kcal/kg for MYT period in MYT Regulations 2024. Therefore, the Petitioner most respectfully submits that the fact of actual GCV loss as acknowledged by the Hon'ble Commission for MYT period (FY 2025-26 to FY 2029-30) also remain relevant for period FY 2022-23 to FY 2024-25 for which True Up is being undertaken in this Petition. It is submitted that similar facts may please be treated in a similar fashion. In view of this, despite that the actual GCV loss for FY 2023-24 is higher than 750 kcal/kg, the Petitioner request the Hon'ble Commission to allow GCV loss at least of 750 kcal/kg for FY 2023-24.
- 8.2.2.3 The Petitioner most respectfully submits that it has filed the Appeal against the Hon'ble Commission's Order in Case No. 227 of 2022 and Case No. 132 of 2023 covering the issue of GCV variation as one of the issues in Appeal. The matter is sub-judice at the Hon'ble APTEL without any stay Order. However, the Petitioner most respectfully submits that, in the event the Hon'ble Commission is pleased to consider and kindly allow the GCV variation up to 750 kcal/kg, the primary cause of Appeal at APTEL will get largely resolved, hence, the Petitioner shall with utmost respect & humbly submits that it shall withdraw its appeal on this matter, which is currently pending before the Hon'ble APTEL.

8.2.3 Fuel Expenses:

- 8.2.3.1 The Petitioner submits that the actual fuel expense as per audited accounts of FY 2023-24 is Rs. 20,856.47 Crore. As against the actuals, the approved fuel expenses for FY 2023-24 were Rs. 24,504.14 Crore in MTR Order.
- 8.2.3.2 As the fuel prices and GCV are uncontrollable factors, the Petitioner has computed revised normative fuel expenses as per actual gross generation in line with normative operational parameters.
- 8.2.3.3 The Hon'ble Commission in the MTR Review Order (Case No. 132 of 2023) considered the submissions of MSPGCL and granted a total relaxation in GCV loss of 650 kCal/kg for FY 2023-24 and FY 2024-25. Further, for the MYT period FY 2025-26 to FY 2029-30, the Hon'ble Commission has allowed GCV loss of 750 kCal/kg.
- 8.2.3.4 Therefore, based on the submission of the Petitioner in foregoing section of this Petition, the Petitioner respectfully submits that, given the higher GCV loss (i.e., 750 kCal/kg) has been accepted for the subsequent years, it would seem rather restrictive to apply a loss of 650 kCal/kg for FY 2023-24. In view of this, the Petitioner humbly requests that this matter be reconsidered in light of the accepted standards for the later years.
- 8.2.3.5 However, as stated in chapter of Truing up of FY 2022-23, since the matter regarding GCV gap is sub-judice before the Hon'ble APTEL, the Petitioner has calculated its claim for normative fuel costs for FY 2023-24 based on a GCV gap of 650 kCal/kg approved by the Hon'ble Commission in MTR Review Order.
- 8.2.3.6 The table below provides the comparison of the fuel expense approved in MTR Order, revised normative (to be approved) and actual fuel expenses:

Table 79: Comparison of Actual and Approved Energy Charges for FY 2023-24 (Rs. Crore)

Station	2023-24		
	Approved	Revised Normative	Actual
Bhusawal Unit 3	577.39	415.52	463.93
Chandrapur Units 3 -7	4,334.62	3,447.65	3,689.08
Khaperkheda Units 1-4	2,087.02	1,462.28	1,639.10
Koradi Unit 6	409.89	340.54	384.25
Nashik Units 3-5	1,836.28	1,089.59	1,219.44
Uran	1,473.47	907.31	937.81
Paras Units 3-4	1,161.36	1,195.48	1,260.87
Parli Units 6-7	1,727.00	1,373.14	1,366.00
Khaperkheda Unit 5	1,406.03	1,021.62	1,121.45
Bhusawal Units 4-5	2,603.58	2,353.21	2,580.33
Koradi Units 8-10	3,613.72	2,883.85	3,280.96
Chandrapur Units 8-9	2,417.04	2,201.72	2,287.26
Parli Unit 8	856.74	637.72	625.99
Total	24,504.14	19,329.63	20,856.47

- 8.2.3.7 The difference in the approved and actual fuel expenses is on account of variation in gross generation, price and GCV of fuels and actual technical performance. The Petitioner has worked out the revised normative fuel cost

based on the actual gross generation. Final entitlement of fuel cost is worked out after sharing the gains and losses.

8.2.3.8 The Petitioner respectfully submits that the aforementioned normative fuel cost has been calculated based on an allowable GCV variation of 650 kCal/kg.

8.2.3.9 The Petitioner further submits that, considering the GCV loss of 750 kCal/kg between GCV "As Billed" and GCV "As Received", the normative fuel cost worked out to Rs. 19606.95 Crore, the station wise working of the same is as tabulated below:

Station	2023-24		
	Approved	Revised Normative	Actual
Bhusawal Unit 3	577.39	427.71	463.93
Chandrapur Units 3 -7	4,334.62	3,533.56	3,689.08
Khaperkheda Units 1-4	2,087.02	1,497.43	1,639.10
Koradi Unit 6	393.11	346.38	384.25
Nashik Units 3-5	1,836.28	1,120.13	1,219.44
Uran	1,473.47	907.31	937.81
Paras Units 3-4	1,161.36	1,231.40	1,260.87
Parli Units 6-7	1,727.00	1,332.02	1,366.00
Khaperkheda Unit 5	1,406.03	1,045.08	1,121.45
Bhusawal Units 4-5	2,603.58	2,406.62	2,580.33
Koradi Units 8-10	3,613.72	2,888.55	3,280.96
Chandrapur Units 8-9	2,417.04	2,248.29	2,287.26
Parli Unit 8	856.74	622.46	625.99
Total	24,487.36	19,606.95	20,856.47

8.2.3.10 In view of above, the Petitioner respectfully requests the Hon'ble Commission to grant appropriate relaxations in GCV variation in GCV "As Billed" and "As Received" by invoking the provisions under the MERC MYT Regulations, 2019, related to "Power to Relax" and "Power to Remove Difficulties. It is requested that the Hon'ble Commission may consider the submissions and consider the same as deemed appropriate and accordingly allow sharing of gains and losses on fuel cost.

8.2.4 Capitalization:

8.2.4.1 MSPGCL submits that it has capitalized Rs. 611.09 Crores in FY 2023-24 as against the approved capitalization of Rs. 1569.16 Crores. The station/ unit wise details of approved and actual capitalization during the years are provided below:

Table 80: Details of Additional Capitalization in FY 2023-24 (Rs. Crore)

Station	Approved	Actual	Breakup of actual capitalization				Non-DPR %
			DPR	Non DPR	Discharge of UDL	Total	
Bhusawal Unit 3	5.54	0.41	-	0.41		0.41	0%
Chandrapur Units 3 -7	149.45	110.79	92.33	18.47		110.79	20%
Khaperkheda Units 1-4	421.13	112.08	93.39	18.69		112.08	20%
Koradi Unit 6	88.81	2.05	-0.12	2.17		2.05	-1835%
Nashik Units 3-5	29.76	5.11	4.06	1.06		5.11	26%
Uran	114.05	21.86	18.27	3.59		21.86	20%
Paras Units 3-4	44.95	26.73	23.59	3.14		26.73	13%
Parli Units 6-7	25.80	7.86	7.77	0.10		7.86	1%
Khaperkheda Unit 5	269.41	91.41	76.19	15.21		91.41	20%
Bhusawal Units 4-5	7.89	16.58	10.92	5.66		16.58	52%
Koradi Units 8-10	41.59	31.90	26.59	5.31		31.90	20%
Chandrapur Units 8-9	301.75	87.45	76.97	8.41	2.07	87.45	11%
Parli Unit 8	7.57	78.83	78.27	0.57		78.83	1%
SHP	26.52	7.50	7.00	0.50		7.50	7%
Bhira	-	0.18	0.15	0.03		0.18	17%
Koyna	34.94	9.53	9.11	0.42		9.53	5%
Tillari	-	0.81	0.81	0.00		0.81	0%
Total	1,569.16	611.09	525.29	83.73	2.07	611.09	16%

8.2.4.2 The Petitioner submits that overall actual capitalization in FY 2023-24, is lower than that approved by the Commission. It may be appreciated that the implementation of approved capital expenditure requires significant lead time in preparation of design, bid process management, negotiations and ensuring that the cost submitted by the bidders is within reasonable range. At times, this process takes more than the envisaged time leading to spill over of schemes to the subsequent years. The Petitioner endeavours to ensure that capitalisation of schemes falls within the envisaged timelines going forward. Further, due to following reasons, variation in actual capitalisation vis-à-vis capitalisation approved for FY 2023-24,

- During FY 2023-24, Annual/Capital Overhauls of 12 nos. of thermal units, (capacity-4256 MW) was planned by MSPGCL. However, in order to meet the Maharashtra's increasing power demand throughout the year, Annual/Capital Overhauls of 6 nos. of thermal units, (capacity -2460 MW) were not consented by MSEDCL and were deferred during FY 2023-24. Total 58% of Overhaul of thermal units was deferred in FY 2023-24. Hence execution & implementation of the approved DPR schemes which was scheduled during the overhaul of these units, which were deferred, was significantly impacted.
- Further, some of the anticipated capital expenditures occurred later in the fiscal period, and therefore, the total capitalization for the period is lower than expected. The remaining costs may be recognized in the next reporting period.

8.2.4.3 Further, during the execution of the capital schemes, there were instances of cost savings due to more favorable procurement terms or more efficient project execution. These savings resulted in the final capitalization being lower than initially anticipated.

8.2.4.4 In MTR petition, the Petitioner had submitted additional capitalisation of Rs. 2461.39 Crore for FY 2023-24. The Hon'ble Commission has approved

capitalisation of Rs.1569.16 Crore for FY 2023-24 by adopting following approach in MTR Order:

- a. **DPR schemes (above Rs. 10 Crore each):** Entire capitalisation is approved for all DPR schemes capitalised in the year in respect of which in-principle approval has been accorded. In case of the schemes executed through competitive bidding, the cost overrun with respect to approved cost has been allowed.
- b. **Non-DPR schemes (less than Rs. 10 Crore each):** The capitalisation of the non-DPR schemes has been considered up to 20% of the cost of the capitalised DPR schemes.

- 8.2.4.5 In case of cost-over run for a scheme beyond the cost approved at the time of "In principle" approval, the detailed schemes amount of cost overrun along with reasons are as per attached Annexure - 15.
- 8.2.4.6 The amount of capitalisation towards non-DPR schemes are within the approved range of 20% of capitalisation of DPR schemes for almost all stations except Bhusawal Units 4&5.
- 8.2.4.7 In light of the above, the Petitioner request the Hon'ble Commission to approve the capitalisation as tabulated above for FY 2023-24.

8.2.5 Operations and Maintenance Expenses

- 8.2.5.1 The Hon'ble Commission in its MTR Order (Case No. 227 of 2022) dated 31.03.2023 had approved O&M expenses for FY 2023-24 for old Stations based on historical average and escalated as per Regulation 47.1 of MERC (MYT) Regulations, 2019.
- 8.2.5.2 For the new units commissioned after 2005, the Hon'ble Commission had approved the O&M expenses considering the norm in Rs. Lakh/MW as specified in Regulation 47.2 of MERC (MYT) Regulations, 2019. While arriving normative O&M expense for FY 2023-24 in MTR Order, the Hon'ble Commission has considered escalation rate of 3.94% as per actual escalation rate for FY 2021-22 as per latest available WPI and CPI indices. Hence, for the final true up of FY 2023-24, revised normative O&M expense are worked out considering actual escalation rate of 4.36% calculated for FY 2023-24 as per WPI/CPI indices. The working of the same is provided below:

Table 81: Working of escalation rate for revised normative O&M expense for FY 2023-24

Year	WPI	Percentage Annual Change in WPI	CPI	Percentage Annual Change in CPI
FY 2018-19	119.79		299.92	
FY 2019-20	121.80	1.68%	322.50	7.53%
FY 2020-21	123.38	1.29%	338.69	5.02%
FY 2021-22	139.41	13.00%	356.06	5.13%
FY 2022-23	152.53	9.41%	377.62	6.05%
FY 2023-24	151.42	-0.73%	397.20	5.19%
Average from FY 2018-19 to FY 2023-24		4.93%		5.78%
Weights		50%		50%
Escalation Factor				5.36%
Efficiency Factor				1%
Escalation Factor Net of Efficiency Factor				4.36%

8.2.5.3 Regulation 49.1 (c) of MERC (MYT) Regulations 2019 provides that O&M expense incurred by Hydro generating stations on its housing colonies and related expenses, including medical and other facilities and on their operating staff shall be allowed separately. The relevant excerpt of the said regulation is reproduced as below:

“49 Operation and Maintenance Expenses for Hydro Generating Stations

49.1 For Existing Stations:

.....

c) The Operation and Maintenance expenses incurred by the Generating Company on its housing colonies and related expenses, including medical and other facilities, and on their operating staff shall be excluded from (a) and (b) above and allowed separately, subject to prudence check.”

8.2.5.4 In view of aforesaid regulations, the O&M expense incurred by Hydro generating stations on its housing colonies and related expenses are summarised as under:

Table 82: O&M expense on housing colonies related expenses of Hydro stations for FY 2023-24 (Rs Crore)

Sr. No.	Station	Other expenses
1	Koyna	0.86
2	Bhira	0.05
3	Tillari	0.10
4	SHP	1.64
	Total	2.65

8.2.5.5 The aforementioned O&M expenses of Hydro generating stations related to housing colonies are claimed at actuals under the head of other expenses (Form 10 of regulatory formats).

8.2.5.6 The comparison of revised normative O & M expenses worked out based on escalation rate along with water charges and other charges and actual expenses for FY 2023-24 is provided in the table below:

Table 83: Break-up of O & M expenses for FY 2023-24 (Rs Crore)

Station/Unit	Approved in MTR Order					Revised Normative			
	Normative O&M expenses	Pay Revision	Water charges	Other Charges	Total O&M expenses	O&M expenses (Incl Pay revision) \$	Water charges	Other Charges	Total O&M expenses
Bhusawal Unit 3	100.49	7.91	11.26	3.74	123.40	109.83	16.34	7.41	133.58
Chandrapur Units 3 -7	618.43	33.29	10.97	46.50	709.19	660.30	26.89	44.95	732.15
Khaperkheda Units 1-4	289.22	17.32	60.09	28.92	395.55	310.57	62.24	30.27	403.09
Koradi Unit 6	183.15	12.56	38.73	13.40	247.84	136.44	41.88	15.41	193.73
Nashik Units 3-5	283.72	19.28	13.58	28.66	345.24	306.99	46.17	29.41	382.57
Uran	94.86	6.93	1.12	0.14	103.05	103.13	1.46	0.05	104.64
Paras Units 3-4	155.05	10.63	4.28	17.44	187.40	165.82	12.50	15.39	193.71
Parli Units 6-7	155.05	12.96	13.62	8.97	190.60	168.18	37.99	17.09	223.27
Khaperkheda Unit 5	103.10	6.50	35.86	9.18	154.64	109.68	43.12	20.41	173.22
Bhusawal Units 4-5	206.20	16.32	3.14	31.45	257.11	222.73	20.11	39.81	282.65
Koradi Units 8-10	330.07	22.40	81.80	29.73	464.00	483.25	99.06	35.19	617.50
Chandrapur Units 8-9	206.20	12.54	5.71	53.84	278.29	218.90	26.24	21.40	266.54
Parli Unit 8	77.53	5.49	8.45	5.89	97.35	83.08	20.03	15.16	118.27
SHP					251.67	137.12	0.00	0.37	137.49
Bhira	226.58	24.78	-	0.31	0.00	6.93	0.00	0.00	6.93
Koyna					0.00	96.17	0.00	0.34	96.51
Tillari					0.00	14.45	0.00	0.00	14.45
Total	3029.65	208.90	288.61	278.17	3805.33	3333.59	454.03	292.68	4080.29

Note: \$ Normative O&M expenses and pay revision (approved in MTR Order) has revised considering escalation rate for FY 23-24 and the same has shown in single column under head of 'Revised Normative' in above table.

Table 84: Comparison of Normative in MTR Order and Revised normative v/s actual O & M expenses for FY 2023-24 (Rs. Crore)

Station/Unit	Approved in MYT Order	Revised Normative	Actual				
	Total O&M expenses	Total O&M expenses	O&M expenses #	Pay Revision \$	Water charges	Other Charges @	Total O&M expenses
Bhusawal Unit 3	123.40	133.58	172.75	8.19	16.34	7.41	204.68
Chandrapur Units 3 -7	709.19	732.15	821.46	62.57	26.89	44.95	955.88
Khaperkheda Units 1-4	395.55	403.09	419.56	25.88	62.24	30.27	537.96
Koradi Unit 6	247.84	193.73	175.28	14.14	41.88	15.41	246.71
Nashik Units 3-5	345.24	382.57	289.22	19.97	46.17	29.41	384.77
Uran	103.05	104.64	114.14	8.82	1.46	0.05	124.48
Paras Units 3-4	187.40	193.71	256.43	15.84	12.50	15.39	300.16
Parli Units 6-7	190.60	223.27	224.67	16.57	37.99	17.09	296.33
Khaperkheda Unit 5	154.64	173.22	141.07	8.77	43.12	20.41	213.39
Bhusawal Units 4-5	257.11	282.65	294.21	22.89	20.11	39.81	377.01
Koradi Units 8-10	464.00	617.50	525.96	23.95	99.06	35.19	684.16
Chandrapur Units 8-9	278.29	266.54	343.97	13.10	26.24	21.40	404.71
Parli Unit 8	97.35	118.27	131.55	8.29	20.03	15.16	175.02
SHP	251.67	137.49	168.65	21.69	0.00	0.37	190.71
Bhira	0.00	6.93	8.83	0.89	0.00	0.00	9.71
Koyana	0.00	96.51	139.24	16.72	0.00	0.34	156.30
Tillari	0.00	14.45	16.91	1.34	0.00	0.00	18.25
Total	3805.33	4080.29	4243.90	289.62	454.03	292.68	5280.22

Note:

Actual O&M expenses including pay revision corresponding to pay revision approved in MTR Order (Case No. 227 of 2022)

\$ Pay revision provision made in books of account of FY 2023-24 as per pay revision applicable from 01.04.2023 as per MSPGCL Circular dated 02.08.2024 and 09.08.2024

@ Actual other chages approved under O&M are claimed in the above table. However, formats the same is separately shown under the head of Other charges in Form F10.

8.2.5.7 With respect to the variation in O & M expenses, the Petitioner submits as follows:

- The Petitioner has worked out revised normative expenses for FY 2023-24 with revised escalation rate as per provisions of Regulation 47.1 (c) of MERC (MYT) Regulations 2019.
- The escalation factor considered by the Hon'ble Commission has been revised based on CPI and WPI indices numbers for FY 2023-24 to 4.36%.
- The Hon'ble Commission has approved normative O&M expense based on the historical average O&M expenses with escalation as per norms provided in the MERC (MYT) Regulations 2019. Further, in MTR Order impact of pay revision has been approved separately for FY 2023-24 based on the actual amount for FY 2021-22 with escalation based on WPI/CPI indices. The Petitioner submits that actual O&M expenses shown in above table are including the impact of pay revision corresponding to pay revision amount approved by the Hon'ble

Commission for FY 2023-24 in MTR order. In view of this, it is submitted that sharing of O&M expenses has worked out comparing the normative O&M expense and impact of payment revision approved for FY 2023-24 vis-à-vis actual O&M expenses (Other Coal related charges for FY 2023-24 is attached as Annexure-16).

- The Petitioner has announced a pay revision for its employees through circulars no. 546, 548, and 549 dated 09.08.2024, which are attached as Annexure - 23. As per these circulars, the pay revision is effective from 01.04.2023. Accordingly, a provision for the pay revision has been recorded in the books of accounts for FY 2023-24. In light of this, the Petitioner respectfully requests the Hon'ble Commission to approve the pay revision amount of Rs. 289.62 Crore for FY 2023-24 (for old and new stations), without subjecting it to the sharing of gains or losses, as detailed in the table above. It is submitted that the revised salary structure has been implemented from August 2024 for regular monthly payments and the arrears for the period April 2023-July 2024 will be disbursed during FY 2024-25. Therefore, the Petitioner requests the Hon'ble Commission to approve the pay revision impact as per the provisions recorded in the books of accounts and subsequently allow for the adjustment of the differential amount based on actual disbursements.
- It appears that the normative O&M expenses for Koradi Unit 6, approved by the Hon'ble Commission in the MTR Order from FY 2022-23 onwards, were based on the operation of two units (Units 6 and 7). However, since Unit 7 has been retired and only Unit 6 remains operational, the Petitioner has considered the normative O&M expenses for Koradi Unit 6 as 2/3rd of the amount approved by the Hon'ble Commission for FY 2021-22 in the MTR Order along with escalation on the same up to FY 2023-24. It is submitted that the petitioner has considered 2/3rd of the approved amount considering that common auxiliaries cannot be dismantled, hence instead of half of the approved amount, the Petitioner has considered 2/3rd of the approved O&M expenses. Accordingly, the Petitioner has calculated the revised normative O&M expenses of Koradi Unit 6 for FY 2023-24.
- **O&M expense for new units:** The Petitioner submits that the O&M expenses has been considered as per regulations on Rs Lakhs/MW basis for the new stations. The impact of pay revision approved for FY 2021-22 has been escalated at the rate of 4.36% (calculated as per WPI and CPI indices) and considered for FY 2023-24 in addition to the O&M expenses considered as per norm of Rs. Lakh/MW. Further, it is submitted that the normative O&M expenses approved in the Regulations for new stations are far lower as compared to the O&M expense allowed under CERC Regulations. The lower norms lead to significant disallowances in actual O & M expenses as shown in the comparison below:

Table 85: O&M Norms vs actual O&M cost (Rs. Lakhs/MW) for new stations

Sr. No.	Station	Capacity	Total approved MERC norm incl Pay revision	Actuals (Audited)	Disallowance	Disallowance
		MW	Rs. Lakh/MW			Rs. Crore
		a	b	c	d=c-b	e=d*a/100
1	Paras Units 3-4	500	34.18	51.29	17.11	85.53
2	Parli Units 6-7	500	34.32	44.93	10.61	53.05
3	Khaperkheda Unit 5	500	22.37	28.21	5.84	29.20
4	Bhusawal Units 4-5	1000	22.91	29.42	6.51	65.13
5	Koradi Units 8-10	1980	17.88	26.56	8.68	171.94
6	Chandrapur Units 8-9	1000	21.93	34.40	12.47	124.67
7	Parli Unit 8	250	34.32	52.62	18.30	45.74
	Total					575.26

- 8.2.5.8 It can be observed from the above table that the norms set by the Hon'ble Commission for new generating stations are on the lower side when compared to the actual O&M expenses of new stations for FY 2023-24. Furthermore, the O&M norms approved by the Hon'ble Commission for new stations are significantly lower than norm those set by the Hon'ble CERC for similar generating stations. The Petitioner respectfully submits that it has consistently raised these practical difficulties in meeting O&M expenses within the given norms through various Petitions. The Petitioner also expressed its concerns at the stage of framing of the Regulations. However, these submissions were not considered by the Hon'ble Commission in final Regulations, nor was any relaxation provided in subsequent Orders issued in pursuance with various tariff petitions, despite the challenges presented by the Petitioner in meeting the norms.
- 8.2.5.9 In light of the above, the Petitioner respectfully submits that it has not been able to recover a substantial portion of actual O&M expenses. As a result, the Petitioner is unable to allocate sufficient funds for the repairs and maintenance of the plants or stations. This lack of funding leads to extended maintenance periods, adversely affecting the availability of the plants and stations, which in turn results in under-recovery of the entitled fixed costs for the stations. In view of the above, the Petitioner submits that this situation has created a vicious cycle, negatively impacting the financial position of the Petitioner. The disallowance of such amount would further adverse the precarious financial position of the Petitioner.
- 8.2.5.10 Due to stringent O&M norms, resulted in disallowance in O&M expenses as per actual O&M expenses and norm set by this Hon'ble Commission, the Petitioner has incurred financial loss of Rs. 575.26 Crore for FY 2023-24 as shown in the table above. The comparison of MERC norm, actual O&M expenses (Rs. Lakh/MW) and CERC norm is tabulated below.

Table 86: Difference in O&M expense of CERC vs. MERC

Sr. No.	Station	Approved as per MERC norm	Pay revision	Total approved MERC norm incl Pay revision	Actuals (Audited)	Disallowance	CERC Norm
Rs. Lakh/MW							
		a	b	c=a+b	d	e=d-c	f
1	Paras Units 3-4	31.01	3.17	34.18	51.29	17.11	37.84
2	Parli Units 6-7	31.01	3.31	34.32	44.93	10.61	37.84
3	Khaperkheda Unit 5	20.62	1.75	22.37	28.21	5.84	25.84
4	Bhusawal Units 4-5	20.62	2.29	22.91	29.42	6.51	25.84
5	Koradi Units 8-10	16.67	1.21	17.88	26.56	8.68	23.26
6	Chandrapur Units 8-9	20.62	1.31	21.93	34.40	12.47	25.84
7	Parli Unit 8	31.01	3.31	34.32	52.62	18.30	37.84

8.2.5.11 The Petitioner submits that the section 61 of Electricity Act 2003 provides for the recovery of electricity costs in a reasonable manner and State Tariff Regulations need to be guided by the principles and methodologies specified by the Central Commission for determination of tariff. In view of this, the Petitioner respectfully requests the Hon'ble Commission to relax the norms approved by the Hon'ble Commission for new generating stations and align them with CERC norms, and accordingly allow the O&M expenses after sharing of gains and losses.

8.2.5.12 Regarding the O&M norms for Koradi Units 8-10, the CEA, in its report as detailed in the earlier section of this Petition, stated that the O&M expense norm for FY 2020-21 (the first year of the MYT Regulations 2019) was significantly reduced to Rs. 14.99 Lakhs/MW, compared to Rs. 16.24 Lakhs/MW for FY 2019-20 (the last year of the MYT Regulations 2015) for 600/660 MW units, reflecting a reduction of approximately 7.7%. In light of this, the Petitioner respectfully submits that the O&M norm for Koradi Units 8-10 set for the entire MYT control period is based on the lower O&M norms established for the first year of the MYT Control Period. Furthermore, according to the CERC Tariff Regulations 2019, the O&M norm for 600 MW units for FY 2023-24 is Rs. 23.26 Lakhs/MW, and the table above clearly shows that the actual O&M expenses for Koradi Units 8-10 are in line with the CERC norm. The relevant excerpt of the aforementioned CEA report is provided below:

"g) The Committee observed that norms for MERC MYT Regulations 2015 for 660 MW units were understood to have been arrived at by considering around one and half year actual O&M expense details of Bhusawal Unit 4 (500 MW) and around two years actual O&M expenses for Khaperkheda Unit-5 (500 MW) with economy of scale factor 0.9.

Based on the above, the Committee observed that the Normative O&M Expenses as per MERC MYT Regulations 2015 is less by Rs 2.24 Lakh/MW during FY 2016-17 vis-à-vis CERC 2014-19 tariff regulations.

h) The Committee also observed that in case of 660 MW supercritical units of KTPS, first 660 MW unit was commissioned in December 2015 and remaining 2

units were commissioned in November 2016 and January 2017 respectively. It is understood that Actual O&M expenses for FY 2016-17 was considered for framing of O&M expenses of 600/660 MW sets in MYT Regulations 2019.

Based on the above, the Committee observed that under MERC MYT Regulations 2019, base year O&M expense norm for FY 2020-21 (first year of MYT regulations 2019) was reduced substantially to Rs 14.99 Lakhs/MW as compared to Rs 16.24 Lakhs/MW for FY 2019-20 (last year of MYT regulations 2015) for 600/660 MW sets (i.e ~ 7.7% reduction). As mentioned earlier that for initial 2-3 years, O&M expenses of the units remains significantly low and that could be the reason” (Emphasis added)

8.2.5.13 In view of the above, concerning the O&M expenses for Koradi Units 8-10, it is submitted that the revised normative O&M expenses have been worked out considering CERC norm of Rs.23.26 Lakhs/MW for FY 2023-24. In light of this, the Petitioner most respectfully requests the Hon’ble Commission to approve the normative O&M expenses in line with the O&M norm of Rs. 23.26 Lakhs/MW as approved by the CERC in the Tariff Regulations 2019 and accordingly calculate the sharing of gains and losses in O&M expenses.

8.2.5.14 Further, the Petitioner submits that, under Regulation 47.1(g), IT-related expenses may be claimed over and above the normative O&M expenses. The relevant excerpt of the regulation is provided below,

“g) A Generating Company may undertake Opex schemes for system automation, new technology and IT implementation, etc., and, such expenses may be allowed over and above normative O&M Expenses, subject to prudence check by the Commission:”

8.2.5.15 In view of the above, the Petitioner submits the IT expenses incurred for FY 2023-24, as per the table provided below.

Table 87: IT Expenses for FY 2023-24 (Rs. Crore)

Particulars	FY 2023-24
IT expenses	28.89

8.2.5.16 The Petitioner submits that currently, IT expenses are recorded under A&G expenses in Head Office (H.O) expenses and subsequently allocated to the stations. The Petitioner will provide a station-wise breakdown of IT expenses within A&G expenses during the course of proceedings of this Petition. Currently, IT expenses are included in A&G expenses, and therefore, under the existing framework for sharing (gain)/loss of O&M expenses, IT expenses are not being allowed at actuals over and above the normative values. In light of this, the Petitioner respectfully requests the Hon’ble Commission to allow these IT expenses separately, in addition to the normative O&M expenses, while approving the O&M expenses for FY 2022-23 in the True-Up, based on the

details that will be provided by the Petitioner during proceedings of this Petition.

8.2.5.17 The Petitioner will submit the details related to these IT expenses separately. In view of this, the Petitioner request the Hon'ble Commission to approve aforesaid IT expenses separately over and above normative O&M expenses.

8.2.6 Depreciation

8.2.6.1 The Petitioner has considered the approved closing balances of GFA for 2022-23 along with the impact of additional elements as per the review order (Case No. 132 of 2023) in Case 227 of 2022 as the opening balance of GFA for FY 2023-24. Further, basis the additional capitalisation in the stations, the depreciation has been worked out as per the depreciation rates prescribed in the Tariff Regulations.

8.2.6.2 The amount of release of un-discharged liabilities (UDL) of Chandrapur Unit 8-9 of Rs.2.07 Crore during FY 2023-24 is considered as additional capitalization, over and above the additional capitalization recorded in the books of account.

8.2.6.3 The Petitioner has further apportioned the H.O. depreciation as per audited accounts for 2023-24 to stations. The allocation has been done as per operating capacity of the stations during the year.

8.2.6.4 The detailed computation of depreciation is provided in the prescribed format being submitted along with this MYT Petition. The overall comparative summary of depreciation for individual stations vis-à-vis the amounts approved by the Hon'ble Commission is provided in the table below,

Table 88: Comparison of Approved and Actual depreciation for FY 2023-24 (Rs. crore)

Station/Unit	Approved			Actual		
	on GFA	HO	Total	on GFA	HO	Total
Bhusawal Unit 3	18.94	0.30	19.24	5.26	0.07	5.33
Chandrapur Units 3 -7	104.70	2.72	107.43	91.27	0.67	91.94
Khaperkheda Units 1-4	56.12	1.68	57.80	32.48	0.41	32.89
Koradi Unit 6	35.76	0.82	36.59	12.77	0.20	12.97
Nashik Units 3-5	33.37	0.52	33.88	6.99	0.12	7.12
Uran	65.77	1.09	66.86	6.63	0.27	6.89
Paras Units 3-4	78.32	-	78.32	74.84	0.51	75.35
Parli Units 6-7	75.93	2.42	78.35	74.15	0.48	74.63
Khaperkheda Unit 5	183.68	2.30	185.98	189.92	0.58	190.50
Bhusawal Units 4-5	340.94	4.32	345.27	343.73	1.04	344.77
Koradi Units 8-10	698.15	8.48	706.63	694.76	2.06	696.82
Chandrapur Units 8-9	348.61	4.06	352.67	339.35	0.99	340.34
Parli Unit 8	99.96	1.20	101.15	96.80	0.29	97.09
SHP	14.54	0.19	14.73	2.06	0.01	2.07
Bhira				0.09	0.00	0.09
Koyna				5.96	0.04	6.00
Tillari				0.67	0.00	0.67
Total	2,154.79	30.11	2,184.90	1,977.73	7.74	1,985.48

8.2.7 Interest on long term loans and other finance charges

8.2.7.1 The Hon'ble Commission had approved expenses of Rs. 1341.42 Crore as interest expenses and finance charges for 2023-24.

-
- 8.2.7.2 As per Tariff Regulations 30.5, the weighted average rate of interest computed on the basis of the actual loan portfolio during the concerned year shall be considered for the purpose of Truing up. The relevant excerpt of the regulation is provided below for reference:

“30.5 The rate of interest shall be the weighted average rate of interest computed on the basis of the actual long-term loan portfolio at the beginning of each year:

Provided that at the time of Truing-up, the weighted average rate of interest computed on the basis of the actual long-term loan portfolio during the concerned year shall be considered as the rate of interest.”

- 8.2.7.3 Accordingly, the Petitioner has considered the weighted average interest rate as per the actual loan portfolio of the operational projects for true-up of interest expenses for 2023-24. The said interest rates have been used for the computation of interest expenses on existing loans and new loans.
- 8.2.7.4 The Petitioner has considered the closing loan balances approved for FY 2022-23 as the opening loan balances for FY 2023-24. Further, the additional capitalization has been considered to be funded in the normative debt-equity ratio of 70:30. The loan addition during the year has been considered as equivalent to 70% of the actual capitalization for the year. The allowable Depreciation has been considered as the repayment for the year. Apart from the above, the opening loan balances include the incremental loan amount towards settlement of UDL in case of Chandrapur Units 8-9 as explained in the earlier sections of this petition.
- 8.2.7.5 As per the Tariff regulations 30.6, the interest on long term loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest. The relevant excerpt of the regulation is provided below for reference:
- “The interest on loan shall be computed on the normative average loan of the year by applying the weighted average rate of interest.”*
- 8.2.7.6 Accordingly, the Petitioner has computed the interest on long term loans by applying the weighted average rate of interest of the opening balance loan portfolio, on average of opening & closing balance of loans.
- 8.2.7.7 Other Finance Charges mainly comprise of Guarantee Fee payable to GoM, Service Fees, and other bank charges such as bank remittance charges, bank commission, stamp duty towards working capital limit enhancement, etc. Guarantee charges are payable to GoM for providing guarantee to financial institutions for providing loan assistance to MSPGCL.
- 8.2.7.8 The summary of interest and finance charges claimed for the year are summarised below:

Table 89: Comparison of IoLT including finance charges for FY 2023-24 (Rs. Crore)

Station/Unit	Approved			Actual		
	IOL	FC	Total	IOL	FC	Total
Bhusawal Unit 3	-	0.29	0.29	-	0.41	0.41
Chandrapur Units 3 -7	62.29	1.31	63.60	55.54	3.78	59.31
Khaperkheda Units 1-4	18.08	0.57	18.65	7.71	1.65	9.36
Koradi Unit 6	19.54	0.29	19.83	16.94	0.41	17.35
Nashik Units 3-5	1.76	0.99	2.74	2.26	2.54	4.80
Uran	10.68	0.99	11.67	9.41	2.06	11.48
Paras Units 3-4	25.50	0.78	26.28	24.87	1.21	26.08
Parli Units 6-7	7.80	0.63	8.43	7.49	0.98	8.48
Khaperkheda Unit 5	56.51	0.75	57.25	68.35	3.37	71.71
Bhusawal Units 4-5	162.62	0.78	163.40	161.06	2.98	164.05
Koradi Units 8-10	554.07	3.32	557.39	511.10	4.14	515.24
Chandrapur Units 8-9	306.77	1.57	308.34	271.76	4.20	275.96
Parli Unit 8	97.75	0.43	98.17	89.00	0.55	89.55
SHP	1.81	0.00	1.81	1.14	0.00	1.14
Bhira	-	0.00	0.00	0.06	0.00	0.06
Koyna	3.19	0.01	3.20	0.04	0.01	0.05
Tillari	0.35	0.00	0.35	0.30	0.00	0.31
Total	1,328.72	12.70	1,341.42	1,227.02	28.31	1,255.33

8.2.7.9 The finance charges incurred during FY 2023-24 for Rs.28.31 Crore as against approved amount of Rs.12.70 Crore. It is submitted that the amount of finance charges approved for FY 2023-24 was based on the actual for FY 2021-22. During FY 2023-24, finance charges are increased mainly due to increase in LC charges paid w.r.t procurement of imported coal.

8.2.7.10 Petitioner request the Hon'ble Commission to approve Interest on loan and finance charges as shown in above table.

8.2.8 Interest on Working Capital

8.2.8.1 In the MTR order, the Hon'ble Commission had approved Rs. 858.65 Crore for 2023-24. The Petitioner submits that the Interest on working capital has been computed as per the norms based on audited elements of ARR like O&M expenses, maintenance spares, and fuel expenses. The detailed station wise computation of the normative working capital requirement is provided in **Form 2.4** and 2.7 for thermal generating stations and Hydro generating stations respectively, as prescribed by the Hon'ble Commission.

8.2.8.2 The Regulation 32.1 (f) of MERC (MYT) Regulations 2019 provides for the calculation of the normative rate of interest for working capital. The relevant excerpt of the Regulation is provided for below for reference.

"32 Interest on Working Capital

32.1 Generation

.....

(f) Rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points:

Provided that for the purpose of Truing-up for any year, interest on working capital shall be allowed at a rate equal to the weighted average Base Rate prevailing during the concerned Year plus 150 basis points.” (Emphasis added)

8.2.8.3 The calculation of rate of interest of 10.07% for IoWC for FY 2023-24 is provided below for reference:

Table 90: Calculation of Weighted Average Rate of Interest for IoWC (FY 2023-24)

Date From	Date To	No. of Days	Base Rate
01-04-2023	14-04-2023	14	8.50%
15-04-2023	14-05-2023	30	8.50%
15-05-2023	14-06-2023	31	8.50%
15-06-2023	14-07-2023	30	8.50%
15-07-2023	14-08-2023	31	8.55%
15-08-2023	14-09-2023	31	8.55%
15-09-2023	14-10-2023	30	8.55%
15-10-2023	14-11-2023	31	8.55%
15-11-2023	14-12-2023	30	8.55%
15-12-2023	14-01-2024	31	8.65%
15-01-2024	14-02-2024	31	8.65%
15-02-2024	14-03-2024	29	8.65%
15-03-2024	31-03-2024	17	8.65%
Weighted Average (i)			8.57%
Spread @150 basis points (ii)			1.50%
Interest Rate (i)+(ii)			10.07%

8.2.8.4 Revision of No. of days Receivables in IoWC calculation based on the recent amendments in the Regulations –

- The Petitioner submits that as per the Power Purchase Agreement (PPA) signed between the Petitioner and MSEDCL (dated 01.04.2009 and subsequent amendment dated 24.12.2010 and 17.04.2013), the due date of the payment of the energy bills is 60 days from the date of billing. The due date of 60 days has been considered by the Petitioner and MSEDCL for the reference of payment and levying of delay payment or interest.
- During the relevant period, the applicable tariff Regulations i.e. MERC (MYT) Regulations 2011 also provides for due date of energy bills as two months (60 days). The relevant excerpt of the Regulation is as under:

“52 Billing and Payment of Charges

.....

52.4 In case the payment of bills is delayed beyond a period of two (2) months from the date of billing, a late payment surcharge at the rate of

1.25 per cent per month shall be allowed to be levied by the Generating Company.” (Emphasis added)

- On 08.12.2015, the Hon’ble Commission notified the MERC MYT Regulations, 2015. As per the Regulation 36.1 of MERC MYT Regulations 2019, the due date of bill was revised from 60 days to 30 days from the date of billing. The relevant excerpt of the Regulation is as under:
*“36. Delayed Payment Charge and Interest on Delayed Payment—
36.1 In case the payment of bills of generation Tariff or transmission charges or MSLDC Fees and Charges by the Beneficiary is delayed beyond a period of 30 days from the date of billing, Delayed Payment Charge at the rate of 1.25% per month on the billed amount shall be levied for the period of delay by the Generating Company or the Transmission Licensee or MSLDC, as the case may be, notwithstanding anything to the contrary as may have been stipulated in the Agreement or Arrangement with the Beneficiaries.” (Emphasis added)*
- In view of revision in ‘due date’ from 60 days to 30 days through MERC (MYT) Regulations 2015, the Petitioner has conveyed this change through Board meeting and decision is recorded through Board Resolution and subsequently communicated to MSEDCL vide letter dated 29.06.2018 for amendment to PPA for incorporating the change in due date in line with provisions of MERC (MYT) Regulations 2015.
- Subsequently on 01.08.2019, the Hon’ble Commission notified the MERC MYT Regulations, 2019. As per the Regulation 37.1 of MERC MYT Regulations 2019, the due date of bill is 30 days from the date of billing. The relevant excerpt is provided below,

*“37 Delayed Payment Charge and Interest on Delayed Payment
37.1 In case the payment of bills of generation Tariff or transmission charges or MSLDC Fees and Charges by the Beneficiary is delayed beyond a period of 30 days from the date of billing, Delayed Payment Charge on simple interest basis at the Base Rate as on 1st of the respective month plus 350 basis points per annum on the billed amount shall be levied for the period of delay by the Generating Company or the Transmission Licensee or MSLDC, as the case may be, notwithstanding anything to the contrary as may have been stipulated in the Agreement or Arrangement with the Beneficiaries” (Emphasis added)*

-
- The Hon'ble Commission has subsequently issued MERC (MYT) (Second Amendment) Regulation 2023 on 08.06.2023. In this amendment due date is defined through clause no. 42. The relevant excerpt of the Regulation as under:
*"4.12 Clause (33) (a), (b), and (c) are introduced after Clause (33) of the Principal Regulations: —
"(33) (a) **"due date" means the date by which the bill for the charges for power supplied by the Generating Company or for the transmission service provided by a Transmission Licensee are to be paid, in accordance with the Agreement, as the case may be, and if not specified in the Agreement, forty-five days from the date of presentation of the bill by such Generating Company or Transmission Licensee/STU;"**"*
 - In view of aforementioned Amendment, MSEDCL has repeatedly expressed their interpretation of due date as 60 days from date of invoice and withheld the release of payments against Petitioner's energy bills.
 - The Petitioner further submits that aforementioned Amendments interpret due date as 60 days from the date of billing, as earlier PPA provides for due date of 60 days from the date of billing. However, Regulation 32.1 of MERC (MYT) Regulations 2019 which provides for the interest on working capital, wherein working capital requirement mentioned receivable of 45 days. The relevant excerpt of the regulations is as under:
*"32 Interest on Working Capital
32.1 Generation
(a) In case of coal based/lignite-fired Generating Stations, working capital shall cover:
(i) Cost of coal or lignite and limestone towards stock, if applicable, for fifteen days for pit-head Generating Stations and thirty days for non-pit-head Generating Stations, for generation corresponding to target availability, or the maximum coal/lignite stock storage capacity, whichever is lower;
(ii) Cost of coal or lignite and limestone for thirty days for generation corresponding to target availability;
(iii) Cost of secondary fuel oil for two months corresponding to target availability;
(iv) Normative Operation and Maintenance expenses for one month;*

(v) Maintenance spares at one per cent of the opening Gross Fixed Assets for the Year; and

(vi) Receivables for sale of electricity equivalent to forty-five days of the sum of annual fixed charges and energy charges approved in the Tariff Order for ensuing year/s, computed at target availability and excluding incentive, if any:

minus

(vii) Payables for fuel (including oil and secondary fuel oil) to the extent of thirty days of the cost of fuel computed at target availability, depending on the modalities of payment:” (Emphasis added)

- The Petitioner submits that the interpretation of due date of 60 days from the date of billing creates contravention with provision of specifically of interest on working capital of MERC (MYT) Regulations 2019, as working capital requirement is being calculated considering 45 days of receivables.
- The Petitioner respectfully submits that the Hon'ble Commission may kindly consider the number of days of receivables as 75 days, in accordance with the due date of 60 days stipulated under the Second Amendment of the MERC MYT Regulations, 2019 and an additional 15 days considering the period from coal utilization for generation of electricity to the date of raising of invoices (1st date of the subsequent month) for supply of electricity to MSEDCL, effective from 08.06.2023. The weighted average number of days of receivables considered for FY 2023-24 is thus calculated to be 69 days, as detailed in the calculation provided herein.

Table 91: Weighted Average Days for Receivables for FY 2023-24

From Date	To Date	Days	No of days receivable considered	Wtd. Avg. days receivables for FY 2023-24
01-04-2023	08-06-2023	69	45	69
09-06-2023	31-03-2024	297	75	
Total		366		

- In view of above, the Petitioner humbly requests the Hon'ble Commission to kindly approve 75 days of receivables for the forthcoming years as well for the calculation of normative IoWC.

8.2.8.5 The Petitioner submits that the actual interest on working capital of Rs. 1818.53 Crore as per the books of accounts have been considered by MSPGCL for the purpose of truing up.

8.2.8.6 As per first proviso of Regulation 32.6 of Tariff Regulations 2019, it is provided that:

“Provided that the Delayed Payment Surcharge and Interest on Delayed Payment as per books of accounts of the Generating Company or Licensee or MSLDC shall be deducted from the actual interest on working capital, before sharing of the efficiency gain or efficiency loss, as the case may be”

8.2.8.7 In view of the above, it is submitted that as per the provisions under PPA dated 01.04.2009 between MSPGCL and MSEDCL and also under MERC MYT Regulations, 2019, MSPGCL is allowed to raise Late Payment Surcharge bills on MSEDCL for the delays in receipt of payment for energy bills raised by MSPGCL. Under the methodology adopted by MSPGCL for computing the Late Payment Surcharge bills till FY 2020-21, the payment receipts from the buyer (MSEDCL) are firstly adjusted against the Surcharge amount, due till the payment receipt date and the balance of the amount received is then adjusted against the principal overdue amount till that day. In FY 2019-20, MSEDCL has raised queries on this methodology. As per MSEDCL any payment should be initially adjusted against the principal outstanding amount and balance if any to be adjusted against the LPS dues. At present, an exercise is being undertaken by MSPGCL as well as MSEDCL for reconciliation and finalization of the principal and DPS outstanding amount since PPA date i.e. since FY 2009-10. While the billing reconciliation process between the two Companies is in advance stages, MSEDCL has commenced payment towards liquidation of outstanding dues, as per LPS Rules, 2022, on the basis of outstanding dues as per MSEDCL's assessment.

8.2.8.8 LPS or DPS is being recognised in the Books of Accounts on accrual basis. Hence, it is not the case that LPS recognised in the books account would result in reduction in working capital requirement of the Petitioner. Further, the Petitioner most respectfully submits that the LPS is being levied as penalty due to default in payment and on the other hand reducing the working capital requirement of the Petitioner to the extent of LPS based on accrual basis would be unjust for the Petitioner.

8.2.8.9 In light of the above, in the present petition, the Petitioner is requesting Hon'ble Commission not to carry out any adjustment of actual Interest on Working capital against the presently raised LPS bills. The Petitioner also request Hon'ble Commission to allow it to submit the revised LPS billing data during the proceedings for the present MYT petition along with any incidental impact, provided such methodology and revised LPS workings since FY 2009-10 till FY 2023-24 are approved by MSPGCL Board.

8.2.8.10 Accordingly, for True Up of FY 2023-24, the Petitioner has not taken cognizance to the LPS and the Petitioner has claimed the IoWC as per Audited accounts as shown in below table. The actual IoWC at MSPGCL's level has been allocated to each station based on the net ARR of the respective stations.

Table 92: IoWC as per norms for 2023-24 (Rs. Crore)

Particulars	IOWC Approved	IOWC as per Tariff Calculations	IoWC claimed (actuals)
Bhusawal Unit 3	19.00	20.06	36.40
Chandrapur Units 3 -7	140.19	158.48	272.98
Khaperkheda Units 1-4	69.80	71.88	128.02
Koradi Unit 6	17.64	20.97	40.58
Nashik Units 3-5	58.56	53.09	99.07
Uran	45.56	39.49	69.29
Paras Units 3-4	41.43	57.94	106.24
Parli Units 6-7	56.56	64.50	116.11
Khaperkheda Unit 5	49.00	53.93	101.73
Bhusawal Units 4-5	90.79	115.66	214.71
Koradi Units 8-10	140.66	169.78	306.38
Chandrapur Units 8-9	87.78	111.19	211.43
Parli Unit 8	30.28	33.67	61.02
SHP	30.28	11.32	25.54
Bhira		0.18	0.39
Koyna		12.27	27.50
Tillari		0.51	1.15
Total	877.53	994.91	1818.53

8.2.8.11 Further, as detailed out in foregoing section MSEDCL has participated in the liquidation of arrears scheme for total amount of Rs.13801 Crores. The Petitioner most respectfully submits that current scheme of LPS for liquidation of outstanding brought out vide Electricity (Late Payment Surcharge and Related matters) Rules 2022, does not permit the levy of LPS on the agreed arrears. Hence, the Petitioner has been losing the interest amount on the part of outstanding agreed dues for the scheme. In view of this, the Petitioner has calculated the impact of loss of interest on such amount for the period of 48 months as per LPS scheme at the rate of 10.40%. The loss of interest on outstanding amount of Rs.13801 Crore for FY 2023-24 worked out to Rs.1003.96 Crore. Considering that deferment of recovery of such amount would arise the requirement of working capital for the Petitioner, hence the Petitioner requests the Hon'ble Commission to allow normative IoWC amount of Rs.1003.96 Cr over and above the normative IoWC amount computed in above table and request the Hon'ble Commission to work out sharing of gain and losses on IoWC amount accordingly.

8.2.8.12 In view of above, claim of total normative (including loss of interest) IoWC and actual IoWC would be as under:

Table 93: IoWC for 2023-24 including loss of Interest (Rs. Crore)

Particulars	Normative IoWC	Actual IoWC paid	Effeciency (gain)/loss	Sharing of (gain)/loss	Net entitlement
	a	b	c=b-a	d	e=a+d
Station wise Total (A)	994.91	1818.53			
Add: Loss of Interest (B)	1,003.96				
Total (A+B)	1,998.87	1,818.53	-180.34	-120.23	1,878.64

8.2.8.13 The Petitioner further submits that the beneficiaries have partially accepted the long-standing recoveries, and any adjustment of LPS on an accrual basis instead of a receipt basis would lead to a shortfall in recovery (ARR) and potentially increase future liabilities. This approach would also undermine the MYT framework, which aims for certainty and legitimate cost recovery. Hence, considering this practical difficulty in recovering the reasonable cost during the relevant year, the Petitioner respectfully requests the Hon'ble Commission to permit claiming the differential impact of IoWC based on the actual realization of LPS for FY 2023-24 in the future.

8.2.9 Return on Equity (RoE)

8.2.9.1 In the MYT Order, the Hon'ble Commission had approved the ROE of Rs 1673.90 Crore for 2023-24. The base rate of return on equity has been considered as 14.00% for 2023-24, based on the Regulation 29.2 of MERC (MYT) Regulations 2019. The additional RoE on account of ramp rate and achievement of Mean Time Between Failure (MTBF) have been worked out as per Regulation 29.6 of MERC (MYT) Regulations 2019. The MTBF certification for FY 2023-24 is attached under Annexure 22. The detailed working of the additional ROE is % on account of MTBF is provided as under.

Table 94: Working of additional RoE as per MTBF for FY 2023-24

Stations	Capacity (MW)	MTBF (days)	Additional RoE linked to MTBF
Bhusawal Unit 3	210	17.56	0.00%
Chandrapur Units 3 -7			0.13%
Unit 3	210	44.00	0.00%
Unit 4	210	17.55	0.00%
Unit 5	500	28.07	0.00%
Unit 6	500	17.24	0.00%
Unit 7	500	48.93	0.50%
Khaperkheda Units 1-4			0.00%
Unit 1	210	27.11	0.00%
Unit 2	210	25.44	0.00%
Unit 3	210	15.89	0.00%
Unit 4	210	29.04	0.00%
Koradi Unit 6	210	31.43	0.00%
Nashik Units 3-5			0.00%
Unit 3	210	9.81	0.00%
Unit 4	210	32.17	0.00%
Unit 5	210	19.77	0.00%

Stations	Capacity (MW)	MTBF (days)	Additional RoE linked to MTBF
Paras Units 3-4			0.63%
Unit 3	250	50.07	0.50%
Unit 4	250	119.13	0.75%
Parli Units 6-7			0.00%
Unit 6	250	23.46	0.00%
Unit 7	250	21.74	0.00%
Khaperkheda Unit 5	500	31.33	0.00%
Bhusawal Units 4-5			0.00%
Unit 4	500	16.38	0.00%
Unit 5	500	26.76	0.00%
Koradi Units 8-10			0.00%
Unit 8	660	22.38	0.00%
Unit 9	660	26.66	0.00%
Unit 10	660	34.06	0.00%
Chandrapur Units 8-9			0.25%
Unit 8	500	77.55	0.50%
Unit 9	500	34.22	0.00%
Parli Unit 8	250	35.29	0.00%

Station	Capacity (MW)	MTBF (days)	Additional RoE linked to MTBF
GTPS- Uran			0.16%
Unit-5	108	-	0.00%
Unit-6	108	364.64	1.00%
Unit-7	108	29.12	0.00%
Unit-8	108	30.93	0.00%
Unit-A0	120	-	0.00%
Unit-B0	120	29.50	0.00%

8.2.9.2 The Petitioner has considered the closing balance of equity capital for FY 2022-23 as the opening balance for FY 2023-24. The equity addition for FY 2023-24 has been considered as equivalent to 30% of capitalization for the years as per normative debt equity ratio. The Petitioner has included the impact of incremental equity pursuant to consideration of settlement of UDL in case of Chandrapur Units 8-9 as explained in the earlier section of this petition. The True up summary for the Return on Equity is provided in the table below:

Table 95: Comparison of RoE for FY 2023-24 (Rs. Crore)

Station	Approved	Actual
Bhusawal Unit 3	13.52	13.41
Chandrapur Units 3 -7	139.08	135.95
Khaperkheda Units 1-4	148.43	141.75
Koradi Unit 6	40.11	38.01
Nashik Units 3-5	35.85	35.36
Uran	42.38	43.31
Paras Units 3-4	134.92	140.37
Parli Units 6-7	132.63	132.12
Khaperkheda Unit 5	109.90	112.35
Bhusawal Units 4-5	183.80	184.68
Koradi Units 8-10	434.66	431.95
Chandrapur Units 8-9	187.93	183.99
Parli Unit 8	59.21	56.93
SHP	2.07	1.61
Bhira	0.15	0.07
Koyna	5.62	3.94
Tillari	0.54	0.54
Total	1,670.78	1,656.34

8.2.10 Income Tax

8.2.10.1 The Petitioner submits that income tax for the regulated business shall be allowed on Return on Equity. RoE including additional RoE shall be grossed up with effective tax rate and the said tax rate shall be considered based on the actual income tax paid. In view of this, there was no income tax paid during FY 2023-24, RoE has been grossed up with 0% of income tax for the true-up

8.2.11 Hydro Lease Rental

8.2.11.1 In the MTR order, the Hon'ble Commission had approved Rs. 533.76 crore for hydro lease rentals for FY 2023-24. Further, the Petitioner has paid GST on the lease rentals which are actually paid to GOM as per the Order of the Hon'ble Commission. The overall lease rentals are accordingly provided in the table below:

Table 96: Hydro lease rent expenses in FY 2023-24 (Rs Crore)

#	Approved	Actual claimed
Lease Rental charges	533.76	531.70

8.2.12 Incentive for excess Hydro Generation

8.2.12.1 The Petitioner respectfully submits that, in accordance with the provisions of Regulation 51 of the MYT Regulations, 2019, the availability of the hydro station and the actual generation exceeding the normative availability and design energy qualify for the applicable incentive.

8.2.12.2 Accordingly, the Petitioner has claimed an incentive amounting to Rs. 0.44 Cr. for FY 2023-24. The detailed computation of the incentive is provided in the table below.

Table 97: Hydro Incentive for FY 2023-24

Particulars	Unit	Pophali	Bhira	Tillari	Total
Fixed Cost for Hydro	Rs. Crore	127.66	7.63	16.93	152.23
Normative Availability	%	90.00%	90.00%	90.00%	
Actual Availability	%	90.16%	63.13%	61.28%	
Normative Capacity Charge	Rs.Crore	63.83	3.82	8.46	76.11
Design Energy	MU	3,158.00	70.00	106.06	3,334.06
Auxiliary Consumption	%	1.13%	0.70%	1.20%	
Net Design Energy	MU	3,122.31	69.51	104.79	3,296.61
Energy Charge Rate	Rs./Kwh	0.204	0.549	0.808	
Actual Net Generation	MU	2,929.64	75.41	46.89	3,051.94
Energy Charge billed	Rs. Crore	59.76	4.14	3.79	
AFC incentive	Rs. Crore	0.11	-	-	0.11
VC Incentive	Rs. Crore	-	0.32	-	0.32
Total incentive	Rs. Crore	0.11	0.32	-	0.44

8.2.13 Non-Tariff Income:

8.2.13.1 For the purpose of truing up, MSPGCL has considered the certain deductions in the non-tariff income (on account of implementation of Ind-AS/ IFRS) reflected in the books of accounts.

8.2.13.2 The Petitioner submits that details of the amount claimed under non-Tariff income is provided in the tariff format provided separately.

8.2.13.3 Following is the station wise summary of the NTI approved and amount being claimed in the present Petition for FY 2023-24.

Table 98: Non-Tariff Income for FY 2023-24 (Rs. Crore)

Station	NTI Approved in MYT	NTI Actual (claimed)
Bhusawal Unit 3	1.78	0.83
Chandrapur Units 3 -7	6.38	6.90
Khaperkheda Units 1-4	13.27	4.36
Koradi Unit 6	63.01	1.38
Nashik Units 3-5	4.74	2.42
Uran	1.14	0.87
Paras Units 3-4	4.10	4.28
Parli Units 6-7	3.91	5.68
Khaperkheda Unit 5	8.14	2.58
Bhusawal Units 4-5	7.78	3.94
Koradi Units 8-10	10.92	12.70
Chandrapur Units 8-9	2.36	3.38
Parli Unit 8	2.14	2.84
SHP	3.39	0.35
Bhira		2.84
Koyna		3.18
Tillari		0.02
Total	133.07	58.55

8.2.13.4 From the above table, it can be observed that the actual non-tariff income is lower than the amount approved in the MTR Order. During the submission in

MTR Petition, for FY 2023-24 the Petitioner had included certain elements of other income under NTI. However, present True Up submission, some of those elements have been reclassified under appropriate expense categories by offsetting them against the respective expense heads. This reclassification has led to the deviation between the actual NTI for FY 2023-24 and the NTI approved in the MTR Order, as shown in the above table.

Table 99: Adjustments in NTI for FY 2023-24 (Rs. Crore)

Particulars	Rs. Crore	Adjusted under head
Recovery of liquidated damages/penalties against coal supply contract	123.19	Coal cost (Form 2.2)
Recovery of liquidated damages/penalties against R&M expense	10.08	R&M expense (Form 3.4)
Income from sale of Reject Coal	184.71	Coal cost (Form 2.2)
Total	317.98	

8.2.13.5 The reconciliation of NTI reflecting in books of account and NTI claimed for True up is provided below:

Table 100: Reconciliation of NTI reflecting in Audited Accounts & claimed in True up for FY 2023-24 (Rs. Crore)

Particulars	As per Accounts	Claimed in True up	Remark
Other operating revenues			
Income from sale of Reject Coal	184.71	-	Adjusted against fuel cost
IPP Sale of Coal	218.56	-	Related to Case IV. Hence, not claimed
Total (A)	403.27	-	
Other Income			
Late Payment Surcharge	2,674.18	-	Not considered under NTI as per Regulation 37.3 of MERC (MYT) Regulations 2019
Intt on adv to Employees - Case no 16 of 2008 implementation of Aptel Order 86/87	0.06	-	
Credit Balances Written Back-not Considered	18.48	-	Treatment against provision
Other Misc Income (NTI)	45.81	45.81	
Income of LD recovery adjusted in Fuel Cost (in Form 2.2)	123.19	-	Adjusted against fuel cost. Hence not considered in NTI
Imported coal LD amount waived off in FY 2022-23 for Koradi 8,9,10	-4.78	-	Adjusted against fuel cost. Hence not considered in NTI
Income of LD recovery adjusted in R & M (in Form 3.4)	10.08	-	Adjusted against R&M cost. Hence not considered in NTI
LD Recovery Solar-Unregulated Business	0.04	-	Not pertain to regulated business
Gain/Loss on sale of Fixed Assets Parli Pertains to Old Units 4-5	144.25	-	Retired unit, hence not considered
Government Grant (Solar) & Other income-Unregulated Business	0.12	-	Not pertain to regulated business
Total (B)	3,011.42	45.81	
Energy and demand charges of Supply of electricity to the housing colonies of its operating staff and supply of electricity for construction works at generating Station (Booked under Sale of Power) (C)	12.75	12.75	
Grand Total (A+B+C)	3,427.44	58.55	

8.2.13.6 The Petitioner request the Hon'ble Commission to approve the NTI as claimed in above table.

8.3 Sharing of gain and losses on account of controllable factors:

8.3.1 Regulatory Provisions

8.3.1.1 The Regulation 11 of MERC (MYT) Regulations 2019 provides for mechanism for sharing of gains or losses on account of controllable factors. The relevant provisions of the said regulations are provided below:

“11.1 The approved aggregate gain to the Generating Company or Licensee or MSLDC on account of controllable factors shall be dealt with in the following manner:

(a) Two-third of the amount of such gain shall be passed on as a rebate in Tariff over such period as may be stipulated in the Order of the Commission under Regulation 8.4;

(b) The balance amount of such gain shall be retained by the Generating Company or Licensee or MSLDC.

11.2 The approved aggregate loss to the Generating Company or Licensee or MSLDC on account of controllable factors shall be dealt with in the following manner:

(a) One-third of the amount of such loss may be passed on as an additional charge in Tariff over such period as may be stipulated in the Order of the Commission under Regulation 8.4;

(b) The balance amount of such loss shall be absorbed by the Generating Company or Licensee or MSLDC.”

8.3.1.2 In accordance with the aforesaid provisions, these Hon’ble Commission has allowed normative expenses in the MTR Order. The Petitioner has carried out the sharing of gain or losses under the following heads:

- i. Sharing of losses in O&M expenses.
- ii. Sharing of losses in fuel expenses.
- iii. Sharing of gains towards IoWC.
- iv. Sharing of normative revenue loss due to higher AEC.

8.3.2 Sharing of gain or losses in O&M expenses:

8.3.2.1 Vide MTR order, the Hon’ble Commission had approved O&M expense for FY 2023-24 for old stations, based on the historical average O&M expense with escalation rate (as per available numbers of WPI/CPI indices for FY 2021-22) as per norm provided in Regulation 47.1 (c) of MERC (MYT) Regulations 2019. Normative O&M expense of new generating stations are considered as per Regulation 47.2 of MERC (MYT) Regulations 2019. Further, impact of pay revision has been approved separately for FY 2023-24 based on the actual amount for FY 2021-22 with escalation rate for FY 2021-22 for old and new generating stations. In light of this, the revised normative O&M expense worked out considering the escalation rate as per WPI/CPI indices number for FY 2023-24 as detailed out in the section of O&M expenses. The actual O&M expense claimed are including actual impact of pay revision paid during FY 2023-24. Further, as detailed out in section of O&M expense, the Petitioner has submitted the impact of pay revision for FY 2023-24 of Rs. 289.62 Crore as per MSPGCL’s Circular dated 09.08.2024 which is effective from 01.04.2023. The Petitioner request the Hon’ble Commission to allow separately at actuals without subjecting to sharing of gain/losses. Hence, for the calculation of sharing of gain and losses, the Petitioner has not considered pay revision of Rs.289.62 Crore in amount of actual O&M expenses of FY 2023-24.

- 8.3.2.2 Considering the significant disallowance of O&M expenses due to the stringent O&M norms approved by this Hon'ble Commission compared to the actual O&M expenses of new generating stations, and considering that MERC norms for O&M expenses are much lower than those set by CERC, the Petitioner requests that the O&M norms be aligned with CERC norms. However, for the purpose of calculating the sharing of gains and losses in O&M expenses, the Petitioner has currently used the revised normative O&M expenses as per MERC norms, as approved in Regulation 47.2 of the MERC (MYT) Regulations 2019, except for Koradi Units 8-10 for which considered O&M norm as per CERC norm as recommended in CEA report. The Petitioner respectfully requests the Hon'ble Commission to relax the O&M norms for other new generating stations also considering the practical difficulties in operating within stringent norms under Regulation 105 'Power to Relax' of MERC (MYT) Regulations 2019 and approve the sharing of gains and losses in O&M expenses accordingly.
- 8.3.2.3 For the purpose of sharing of gain or losses in O&M expense, the revised normative expense is compared with actual expenses (including pay revision). In accordance with the provision of 47.2 of MERC (MYT) Regulations 2019, water charges and other charges are considered at actuals in order to arrive the total entitle O&M expense after sharing of gain and losses.
- 8.3.2.4 Following is the calculation of total entitlement of stations wise O&M expense after sharing of gain and losses for FY 2023-24.

Table 101: Calculation of sharing of gain or losses in O&M expenses for FY 2023-24 (Rs. Crore)

Stations	Revised Normative O&M incl pay revision approved	Actual O&M expense (Incl. pay revision)	Efficiency (gain)/loss	Sharing of Efficiency Gain	Net Entitlement after sharing of gains/(losses)	Pay Revision (Provision)	Add: Water charges	Add: Other charges	Add: Hydro colony related exp	Total O&M exp entitlement after sharing
	a	b	c=b-a	d	e=a+d	f	g	h	i	j=e+f+g+h+i
MSPGCL Total	3,333.59	4,243.90	910.31	303.44	3,637.02	289.62	454.03	292.68	2.65	4,676.00

8.3.3 Sharing of gain or losses in Fuel expenses:

- 8.3.3.1 The revised normative fuel expense is worked out as per the actual gross generation as detailed out in the section of fuel expense. As the normative Energy Charges approved by the Hon'ble Commission at target norms of operation viz., GSHR, SFOC and transit and handling loss and the norms of operation are controllable factors, the Petitioner has undertaken the sharing of gains and losses in energy charges on account of variation in norms of operation in accordance with the MERC (MYT) Regulations, 2019.
- 8.3.3.2 Following is the calculation of sharing of gain or losses in fuel expense for FY 2023-24.

Table 102: Calculation of sharing of gain or losses in fuel expenses for FY 2023-24 (Rs. Crore)

Stations	Revised normative fuel expenses	Actual fuel expenses	Efficiency (gain)/loss	Sharing of Efficiency Gain	Net Entitlement after sharing of gains/(losses)
	a	b	c=b-a	d	e=a+d
MSPGCL Total	19,329.63	20,856.47	1,526.84	508.95	19,838.57

8.3.3.3 In light of the above, the Petitioner request the Hon'ble Commission to approve the net entitlement of fuel cost of Rs. 19838.57 Crore after sharing gain and losses in fuel cost.

8.3.4 Sharing of gain or losses towards Interest on working capital:

8.3.4.1 As per revised normative ARR, normative interest on working capital is computed and compared with the actual interest on working capital paid and accordingly considered the sharing of gain and losses towards interest on working capital.

8.3.4.2 Further, as submitted in foregoing section, considering loss of interest of Rs.1003.96 Crore in normative IoWC, the sharing of gain of IoWC worked out as under:

Table 103: Station wise sharing of gain or losses in Interest on working capital for FY 2023-24 (Rs. Crore)

Stations	Revised normative IoWC	Add: Loss of Interest	Total Revised normative IoWC	Actual IoWC paid	Efficiency (gain)/loss	Sharing of Efficiency Gain	Net Entitlement after sharing of gains/(losses)
	a	b	c=a+b	d	e=d-c	f	g=c+f
MSPGCL Total	994.91	1,003.96	1,998.87	1,818.53	-180.34	-120.23	1,878.64

8.3.4.3 The Petitioner requests the Hon'ble Commission to approve the net entitlement of IoWC after sharing of gain and losses of Rs. 1878.64 Crore after sharing of gain and losses in IoWC.

8.3.5 Revenue Gain/ (loss) due to lower/ higher Auxiliary Consumption:

8.3.5.1 The difference between the actual auxiliary consumption and normative auxiliary consumption resulted in the lesser/ additional sales units, due to higher/ lower actual auxiliary consumption, than the normative auxiliary consumption. The Petitioner has computed the station-wise lesser/ additional sales units and used the revised normative station-wise energy charge computed by the Petitioner in the present Petition to arrive at the revenue loss/gain due to higher/ lower auxiliary consumption. This revenue loss/ gain is then shared with the consumers as per the provisions of Regulation 11

(Mechanism for sharing of gains or losses on account of controllable factors) of MERC (MYT) Regulations 2019.

8.3.5.2 It is submitted that some stations were under reserve for shut down (RSD) as per instruction due to lower demand by MSEDCL during FY 2022-23. Additionally, with the implementation of Case IV on any one of Nashik Units 3-5, one unit remained shut down during FY 2023-24. Under these conditions, certain auxiliaries remained in operation to meet plant requirements, leading to an increase in auxiliary consumption (in percentage terms) during FY 2022-23. Therefore, when calculating the Revenue Gain/(Loss) due to lower/higher auxiliary consumption, the Petitioner has excluded the auxiliary consumption (MU) for these units. Accordingly, the such adjusted auxiliary consumption is compared with the normative auxiliary consumption to determine the revenue loss/(gain) due to higher/lower auxiliary consumption for FY 2023-24.

8.3.5.3 Revenue Loss/(Gain) due to higher/lower Aux. consumption for FY 2023-24 is tabulated below-

Table 104: Revenue Loss/(Gain) due to higher/lower Aux. consumption for FY 2023-24 (Rs Crore)

Station	Actual Gross Generation (MU)	Normative AEC %	Actual AEC %	Lesser/ (Additional) energy sale (MU)	Rate of Energy Charge (Rs. kWh)	Revenue Loss due to higher AEC (Rs. Cr)	Sharing of Efficiency (Gain)/Loss
Bhusawal Unit 3	1,016.04	10.96%	13.43%	25.06	4.59	11.51	3.84
Chandrapur Units 3 -7	9,039.12	9.34%	10.50%	105.23	4.21	44.27	14.76
Khaperkheda Units 1-4	4,676.31	10.21%	10.99%	36.53	3.48	12.72	4.24
Koradi Unit 6	1,388.59	10.81%	11.48%	9.27	2.75	2.55	0.85
Nashik Units 3-5	2,647.38	10.75%	12.41%	44.05	4.61	20.31	6.77
Uran - Open Cycle	66.51	1.00%	2.74%	1.15	7.17	0.83	0.28
Uran - Combined Cycle	1,702.52	3.10%	2.93%	-2.90	5.21	-1.51	-1.01
Paras Units 3-4	3,595.98	10.25%	10.48%	8.15	3.70	3.02	1.01
Parli Units 6-7	2,809.23	10.25%	11.23%	27.52	5.45	14.99	5.00
Khaperkheda Unit 5	3,591.10	6.00%	6.36%	12.96	3.03	3.92	1.31
Bhusawal Units 4-5	6,559.20	6.00%	6.81%	53.29	3.82	20.34	6.78
Koradi Units 8-10	11,811.72	6.00%	7.28%	151.08	2.60	39.24	13.08
Chandrapur Units 8-9	7,240.55	6.00%	6.02%	1.30	3.23	0.42	0.14
Parli Unit 8	1,294.99	9.14%	11.87%	35.37	5.42	19.17	6.39
Total	57,439.23			508.07	59.27	191.78	63.42

8.4 Final entitlement for FY 2023-24

8.4.1 AFC reduction

8.4.1.1 As regards the recovery of Annual Fixed Cost, Regulation 50 (A) of MYT Regulations, 2019, stipulates as follows:

*“The fixed cost of a thermal generating station shall be computed on annual basis based on the norms specified under these Regulations and recovered on monthly basis under Capacity Charge. The total Capacity Charge payable for a generating station shall be shared by its beneficiaries as per their respective percentage share or allocation in the capacity of the generating station. **The Capacity Charge shall be recovered under two segments of the year, i.e., High***

Demand Season (period of three months) and Low Demand Season (period of remaining nine months), and within each season in two parts, viz., Capacity Charge for Peak Hours of the month and Capacity Charge for Off-Peak Hours of the month”

8.4.1.2 In light of the above provisions, the Petitioner has computed the AFC reduction of fixed cost as shown below:

Table 105: Working of AFC reduction for FY 2023-24 (Rs. Crore)

Stations	AFC minus water charges	Target availability	HDS - Peak hours	HDS- Off-peak hours	LDS- Peak hours	LDS- Off-peak hours	AFC Reduction
Bhusawal Unit 3	163.83	80.00%	78.91%	79.52%	56.25%	56.26%	36.78
Chandrapur Units 3 -7	1,206.66	80.00%	75.63%	74.98%	51.03%	51.33%	343.43
Khaperkheda Units 1-4	618.28	85.00%	73.65%	73.70%	63.08%	62.75%	141.62
Koradi Unit 6	253.93	72.00%	77.28%	76.85%	74.88%	75.08%	-
Nashik Units 3-5	454.32	80.00%	83.00%	83.53%	80.66%	80.41%	-
Uran	212.32	34.82%	35.09%	36.93%	33.67%	34.32%	-
Paras Units 3-4	492.56	85.00%	86.36%	86.48%	82.33%	81.82%	13.37
Parli Units 6-7	475.92	85.00%	86.99%	86.75%	89.96%	90.38%	-
Khaperkheda Unit 5	564.83	85.00%	82.24%	83.03%	84.82%	83.81%	8.48
Bhusawal Units 4-5	1,090.75	85.00%	79.59%	77.73%	82.61%	82.08%	49.22
Koradi Units 8-10	2,343.76	85.00%	66.44%	65.73%	69.64%	69.20%	456.75
Chandrapur Units 8-9	1,161.65	85.00%	86.86%	86.36%	86.35%	85.76%	-
Parli Unit 8	380.98	85.00%	77.10%	78.32%	72.75%	73.07%	48.06
Total	9,419.77						1,097.70

8.4.1.3 The expense side True up for MSPGCL for FY 2023-24 as per tariff regulations is provided in the table below:

Table 106: Actual Expense and Final Entitlement for FY 2023-24 (Rs Crore)

Particulars	Revised Normative	Actual	Efficiency (Gain)/Loss	Sharing of efficiency (Gain)/Loss	Net entitlement
	A	B	C=B-A	D=1/3rd of (Gain)/Loss	E=A+D
Expenses side summary					
Return on Equity	1,656.69				1,656.69
Interest on Loan	1,255.81				1,255.81
Depreciation	1,985.48				1,985.48
O&M expenses	3,333.59	4,215.00	881.41	293.80	3,627.39
Pay revision		289.62			289.62
Water Charges		454.03			454.03
Other Charges		292.68			292.68
Other charges - Hydro colony related		2.65			2.65
Interest on Working Capital	1,998.87	1,818.53	-180.34	-120.23	1,878.64
IT Expenses		28.89			28.89
Less: Non-Tariff Income		58.55			58.55
Annual Fixed Charges			-		11,413.33
Income Tax			-		-
Hydro Incentive		0.44			0.44
Hydro Lease Rent		531.70			531.70
Fuel Cost	19,329.63	20,856.47	1,526.84	508.95	19,838.57
Aggregate Revenue Requirement			-		31,784.03
AFC Reduction			-		1,097.70
Net Revenue Requirement			-		30,686.33
Revenue from sale of power		28,633.69			28,633.69
Revenue loss due to higher auxiliary consumption				63.42	63.42
Revenue for true-up			-		28,697.12
Revenue Gap/(Surplus)			-		1,989.21

- 8.4.1.4 As depicted in above table, the total revenue considered for true up in FY 2023-24 is Rs. 28633.69 Crore and revenue loss after sharing due to higher auxiliary consumption of Rs. 63.42 Crore is considered for calculating the net revenue gap for FY 2023-24. Accordingly, the Petitioner request the Hon'ble Commission to approve net entitlement for FY 2023-24.

8.5 Net True up for FY 2023-24

- 8.5.1.1 The net True up amount for FY 2023-24, considering the Expense side summary (after sharing of gains and losses and AFC disallowance due to lower availability) and Revenue side summary is provided in the table below:

Table 107: Net True up summary for FY 2023-24 (Rs Crore)

Particulars	FY 2023-24 Truing up (Rs. crore)
Expense Side Summary (A)	30,686.33
Revenue from sale of power	28,633.69
Loss of revenue due to higher auxiliary cons.	63.42
Revenue Side Summary (B)	28,697.12
Gross True up amount - Gap/(Surplus (A-B))	1,989.21

- 8.5.1.2 The Petitioner requests the Hon'ble Commission to approve the true up as submitted by the Petitioner in above table. The carrying cost on the aforementioned true-up of Gap/surplus has been worked out while calculating cumulative revenue gap for all the True up years in subsequent chapter of this Petition.

8.6 Other issues

8.6.1 Claim for Compensation for loss of revenue against outage at Bhira HPS for R & M works undertaken by M/s Tata Power Company Ltd. - Generation (TPC-G):

- 8.6.1.1 The Petitioner respectfully submits that the Bhira Tail Race (Bhira TR) Power Station (2 X 40 MW), operated by the Petitioner, is located downstream of the Bhira Pumped Storage Unit (BPSU) operated by TPC-G. As per the directives issued by Hon'ble Commission to TPC-G while approving in-principle approval to the Capital Expenditure Scheme proposed by TPC-G for "Operationalization of Bhira Pumped Storage Unit in pumping mode", the Hon'ble Commission had directed TPC-G to approach Hon'ble Commission through a separate Petition for finalizing and approval of the operational modalities of the Pumped Storage Unit.
- 8.6.1.2 Accordingly, the TPC-G had filed a petition (case No. 29 of 2022) seeking approval of the proposed operational modalities of BPSU. As the works proposed by TPC-G were likely to result in non-availability of water for Bhira TR of the Petitioner, TPC-G sought the Petitioner's concurrence for proceeding with the works.

- 8.6.1.3 In response, the Petitioner provided concurrence but also sought compensation from TPC-G for the loss of revenue during the outage period. Accordingly, in the Petition filed before the Hon'ble Commission, TPC-G identified MSPGCL as a Respondent, and MSPGCL raised the issue of compensation in its submission. In the order dated 3rd November, 2022, Hon'ble Commission had mentioned following regarding compensation to MSPGCL

"Maharashtra State Power Generation Company Ltd. can recover the compensation from Tata Power Company-Generation based on principles of MERC (Multi Year Tariff) Regulations, 2019 towards shortfall of its recovery through its Annual Revenue Requirement on account of reduction in availability of 2x40 MW Rawalje power plant."

- 8.6.1.4 The Petitioner submits that the actual outage period for the Bhira TR commenced from 14th November 2023 and continued until June 2024. As there was no generation possible during this period, the Petitioner did not raise any energy bills to MSEDCL. However, compensation has been claimed from TPC-G for this period, based on the approved Fixed Charges for Bhira for FY 2023-24, and these have been accounted for under Revenue from Sale of Power for FY 2023-24.
- 8.6.1.5 The Petitioner respectfully requests the Hon'ble Commission to allow the Petitioner to raise a differential bill toward compensation charges based on the final true-up for FY 2023-24, and as per the fixed charges approved under the MTR Order.

8.6.2 Expenses for CMAGF projects (MSKVY) for FY 2023-24

- 8.6.2.1 The Petitioner had filed a Petition (Case 172 of 2017) in the matter of removal of difficulties in the implementation of "Mukhya Mantri Solar Agricultural Feeder Scheme", approval of draft Power Purchase Agreement (PPA) & draft Power Sale Agreement (PSA) being executed by MSPGCL with the developer and Maharashtra State Electricity Distribution Co. Ltd., respectively for Agriculture (AG) Feeder Solar Power Projects in Maharashtra. In this matter, MSPGCL had requested the Commission for approval of additional A & G expenses to be recovered in the form of trading margin on a per unit basis.
- 8.6.2.2 While disposing off the Petition' (Case 172 of 2017) vide Order dated 16 October 2018, the Commission had ruled the following for recovery of such additional A & G expenses:

The Commission notes that the Intra-State Trading margin has not yet determined by the Commission. On this issue the Commission in its Order dated 25 September, 2018 in Case NO.104 of 2018 has directed MSPGCL as follows;

"23. MSPGCL shall abide by such trading margin, as and when same is decided by the Commission to fix under Section 86(I)U) of the Electricity Act, 2003 for Intra-State Trading transactions in the State of Maharashtra." (Emphasis added) The Commission notes that presently upto seven paise per unit is

allowed to SECI as a trading margin as an intermediary whereas MSPGCL under the present Case has proposed five paise per unit as an Administrative charge. After considering the Administrative charges of MSPGCL, the power purchase cost of the power from the proposed scheme works out to Rs. 3.20 per unit. Considering the decreasing trend of Solar tariffs, such an additional trading margin of 5 paise per unit over and above the discovered tariff/rate will add more burden on the end consumers.

Moreover, MSEDCL in its submission dated June 2, 2018 on this issue of MSPGCL's Administrative charge, has stated that; the administrative expenses incurred by MSPGCL towards implementation of the scheme as an intermediary procurer may be claimed by MSPGCL in their Aggregate Revenue Requirement (ARR) and no administrative charges be added to the PPA tariff. MSEDCL further stated that the Commission may review and decide the administrative charges proposed by MSPGCL in transparent manner as such charges shall have long term impact. In light of above submissions and circumstances the Commission rejects MSPGCL's prayers regarding approval of the administrative charges (Trading margin) of 5 Poise per unit. Until the trading margin is duly determined, MSPGCL can claim prudent administrative expenses as an intermediary procurer as part of its ARR. "

8.6.2.3 In view of the above, the Petitioner has been claiming the expenses incurred by it on development of Solar Power project under Chief Minister Agricultural feeder (CMAg) Solar scheme.

8.6.2.4 It is further to submit here that even though in the GoM GR dated 14.06.2017 and 17.03.2018 it is envisaged that the Government land will be made available at nominal lease rent of Rs. 1 per year, during the initial phase of implementation of the scheme, there were some more expenses were incurred by MSPGCL for land acquisition and land development. The issue of reimbursement of these expenses was raised by MSPGCL before the CMAg Scheme Implementation Committee headed by Hon'ble Principal Secretary (Energy), GoM. In the meeting dated 05.04.2019, the Committee had resolved to approach GoM for reimbursement of these expenses. Accordingly, MSPGCL had approached Energy Department, GoM for reimbursement of such expenses to MSPGCL. However as of now GoM has not made any reimbursement of such land acquisition expenses incurred by MSPGCL. Therefore, it is to be requested to the Hon'ble Commission to consider these expenses for reimbursement through ARR as directed under order dated 16.10.2018 in Case No. 72 of 2017.

8.6.2.5 The Petitioner submits that the details for CMAg scheme related expense for FY 2023-24 is Rs. 3.41 Crore, the details are tabulated below,

Table 108: Expenses for CMAg projects for FY 2023-24 (in Rs. Cr.)

Sr. No.	Particulars	FY 2023-24
1	Cost of Material & Service Consumed	0.16
2	Employee Benefit expense	2.52

Sr. No.	Particulars	FY 2023-24
3	Finance Cost	0.00
4	Depreciation and Amortization expense	0.20
5	Other Admin and General Expense	0.53
	Total	3.41

8.6.3 Revision of the VSE bills raised by MSEDCL to Koyna HPS

- 8.6.3.1 The Petition was filed on 15.05.2024 (Case No. 84 of 2024) requesting the quashing or revision of the weekly VSE (Virtual State Entity) bills issued by MSLDC to Koyna HPS.
- 8.6.3.2 The VSE payment liabilities attributable to Koyna HPS is Rs. 365.399 Crore for FY 2023-24. It is submitted that the VSE charge far exceeds the revenue received from MSPGCL for Koyana as per the tariff approved by the Hon'ble Commission.
- 8.6.3.3 It is submitted that the tariff is fixed by the Hon'ble Commission and there is no revenue stream for the Koyana HPS to pay off for the DSM charges resulting because of the mismatch between scheduled and actual generation by the Koyana HPS, due to instructions of MSLDC and not due to own violation of generator.
- 8.6.3.4 In view of above, the Petitioner has requested the Hon'ble Commission in the Case no. 84 of 2024 to direct MSLDC to revise the invoices for the VSE billing levied for the time blocks due to deviation in schedule and actual generation in view of specific instructions given time to time from MSLDC or alternatively allow the Petitioner to recover the VSE bill from ARR and then to make the payment under VSE without any applicability of LPS and against realisation of recovery amount. Accordingly, the Petitioner requests to allow it to claim the VSE charges as per the outcome of Case no. 84 of 2024. In this regard it is further submitted that, the present petition the Petitioner has not considered any VSE charges.

9 Carrying cost on Final True-up for FY 2022-23 and FY 2023-24 & Additional elements

9.1 Carrying cost/Holding cost

- 9.1.1.1 The Hon'ble ATE in its Judgement in Review Petition No. 13 of 2012 in Appeal No. 203 of 2010 dated 2nd January, 2013 had ruled that the utility is entitled to carrying cost on its claim of legitimate expenditure that has been allowed by the appropriate Commission as a part of the True-up exercise.

"11.5. The utility is entitled to carrying cost on its claim of legitimate expenditure if the expenditure is:

i} accepted but recovery is deferred e.g. interest on regulatory assets,

ii) claim not approved within a reasonable time, and

iii} disallowed by the State Commission but subsequently allowed by the Superior authority.

iv) Revenue gap as a result of allowance of legitimate expenditure in the true up." (Emphasis Added)

- 9.1.1.2 The Petitioner has followed similar approach as per MTR Order in Case No. 227 of 2022 for computation of carrying cost/holding cost. To estimate the carrying cost/holding cost on the revenue gap/surplus. The Petitioner has considered the rate of IoWC applicable for the respective year. The Petitioner has considered the revenue gap/surplus to be applicable from the middle of the year of its occurrence till the middle of the year in which the adjustment is allowed. The computation of carrying cost/holding cost for the true-up amount is worked out as follows:

Table 109: Computation of carrying cost/holding cost (in Rs. Cr.)

FY	Description	Year	FY15	FY16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Total Including Carrying Cost
		Rs Crore	14.45%	14.05%	10.79%	10.18%	9.89%	9.66%	8.57%	8.50%	9.30%	10.07%	10.45%	10.45%	
FY14	Bhusawal 4-5 (on a/c of LD capitalisation of Rs.20.90 Cr)	0.74	0.05	0.10	0.08	0.08	0.07	0.07	0.06	0.06	0.07	0.07	0.08	0.04	1.59
FY15		4.24		0.30	0.46	0.43	0.42	0.41	0.36	0.36	0.39	0.43	0.44	0.22	8.47
FY16		4.15			0.22	0.42	0.41	0.40	0.36	0.35	0.39	0.42	0.43	0.22	7.78
FY17		3.32				0.17	0.33	0.32	0.28	0.28	0.31	0.33	0.35	0.17	5.86
FY18		3.03					0.15	0.29	0.26	0.26	0.28	0.30	0.32	0.16	5.05
FY19		3.33						0.16	0.29	0.28	0.31	0.33	0.35	0.17	5.22
FY20		3.27							0.14	0.28	0.30	0.33	0.34	0.17	4.84
FY21		3.14								0.13	0.29	0.32	0.33	0.16	4.37
FY22		2.72									0.13	0.27	0.28	0.14	3.54
FY17		2.26				0.12	0.22	0.22	0.19	0.19	0.21	0.23	0.24	0.12	4.00
FY18	Koradi 8-10 (LD finalisation)	12.65					0.63	1.22	1.08	1.07	1.18	1.27	1.32	0.66	21.08
FY19		11.95					0.58	1.02	1.02	1.11	1.20	1.25	1.25	0.62	18.75
FY20		13.39							0.57	1.14	1.25	1.35	1.40	0.70	19.80
FY21		15.63								0.66	1.45	1.57	1.63	0.82	21.77
FY22		14.16									0.66	1.43	1.48	0.74	18.47
FY17	Pali 8 (UDL impact)	0.00				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FY18		0.15					0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.26
FY19		0.38						0.02	0.03	0.03	0.04	0.04	0.04	0.02	0.60
FY20		0.26							0.01	0.02	0.02	0.03	0.03	0.01	0.38
FY21		0.30								0.01	0.03	0.03	0.03	0.02	0.42
FY22		0.39								0.02	0.04	0.04	0.04	0.02	0.50
FY20	Impact of correction in opening balance of GFA, Equity and loan approved for Bhusawal U# 4-5	1.03							0.04	0.09	0.10	0.10	0.11	0.05	1.52
FY21		0.86								0.04	0.08	0.09	0.09	0.05	1.20
FY22		0.70									0.03	0.07	0.07	0.04	0.92
FY20	Impact of correction in opening balance of GFA, Equity and loan approved for Khaperkheda U# 5	4.65							0.20	0.40	0.43	0.47	0.49	0.24	6.87
FY21		7.93								0.34	0.74	0.80	0.83	0.41	11.04
FY22		7.30									0.34	0.73	0.76	0.38	9.52
FY22	Impact of correction in interest rate for Bhira Station	0.08									0.00	0.01	0.01	0.00	0.10
FY23	Erronous computation at table 7.1 of MTR Order (Cumulative revenue gap/(surplus) upto FY 2022-23	2.17									0.20	0.22	0.23	0.11	2.93
FY23	CMAG (administrative expense)	5.01										0.25	0.52	0.52	6.31
FY24		3.41											0.18	0.18	3.76
FY22	Expenses towards the consumption of lubricants and consumables and commission to agents for FY 19-20 to FY 21-22	27.79									1.29	2.80	2.90	1.45	36.24
FY 23	Final True-up FY 22-23	3,873.76										194.95	404.81	202.40	4,675.93
FY 24	Final True-up FY 23-24	1,989.21											103.94	103.94	2,197.09
FY 25	Final True-up FY 24-25	730.17												38.15	768.32
Total		6,753.54	0.05	0.40	0.76	1.21	2.24	3.71	4.93	7.03	11.66	210.50	525.33	353.13	7,874.51

9.1.1.3 Considering the above submission, the Petitioner requests the Hon'ble Commission to allow recovery of true-up amount along with the carrying cost/holding cost on the same as shown in the table above.

10 Provisional True up for FY 2024-25

10.1 Operational Performance of the Stations:

10.1.1 Availability and PLF:

- 10.1.1.1 In the initial six months of FY 2024-25, coal availability had been significantly lower, resulting to lower availability and PLF of the stations than the norms specified by the Hon'ble Commission. With withdrawal of monsoon effect and fair season performance, improvement is anticipated and projected. Hence, going forward, the availability of the stations is expected to improve.
- 10.1.1.2 As mentioned in the earlier sections, the Petitioner requests the Hon'ble Commission to consider and approve the target availability as recommended in the CPRI Energy Audit reports for Khaperkheda Units 1 to 4.
- 10.1.1.3 Additionally, as the actual availability factor for the FY 2022-23 and FY 2023-24 is lower than the target availability factor, on account of non-availability of adequate gas supply, the Petitioner requests the Hon'ble Commission to relax the Target availability factor for Uran GTPS equal to actual availability.
- 10.1.1.4 Accordingly, station wise Availability and PLF projections is provided in the table below:

Table 110: Availability and PLF of stations in FY 2024-25

Station	Availability		PLF	
	Normative	Actual	Normative	Actual
Bhusawal Unit 3	80.00%	67.52%	85.00%	67.52%
Chandrapur Units 3 -7	80.00%	69.33%	85.00%	69.33%
Khaperkheda Units 1-4	80.00%	71.95%	85.00%	71.95%
Koradi Unit 6	72.00%	70.31%	85.00%	70.31%
Nashik Units 3-5	80.00%	65.05%	85.00%	65.05%
Uran	85.00%	41.87%	85.00%	41.87%
Paras Units 3-4	85.00%	74.92%	85.00%	74.92%
Parli Units 6-7	85.00%	70.22%	85.00%	70.22%
Khaperkheda Unit 5	85.00%	83.39%	85.00%	83.39%
Bhusawal Units 4-5	85.00%	75.03%	85.00%	75.03%
Koradi Units 8-10	85.00%	77.54%	72.00%	77.54%
Chandrapur Units 8-9	85.00%	74.31%	85.00%	74.31%
Parli Unit 8	85.00%	72.32%	85.00%	72.32%

10.1.2 Performance Parameters:

- 10.1.2.1 As mentioned in the True-up sections for FY 2022-23 and FY 2023-24, the Petitioner respectfully submits before the Hon'ble Commission to consider and approve the Auxiliary consumption norms as recommended in the CPRI Energy Audit reports for Chandrapur Units 3-7, Paras Units 3-4, Parli Units 6,7 & 8, Khaperkheda Units 1 to 4.
- 10.1.2.2 The Petitioner further submits that the auxiliary energy consumption of the Emission Control System (ECS) which are anticipated to be commissioned by October 2024, have been factored in while projecting the auxiliary energy consumption for the period from October 2024 to March 2025.

10.1.2.3 The revised projections of performance parameters for the stations are provided below for reference:

Table 111: Revised performance parameters of the stations for FY 2024-25

Station	SHR (kCal/kWh)		Aux. Consumption (%)		Oil Consumption (ml/kWh)	
	Approved	Revised estimate	Approved	Revised estimate	Approved	Revised estimate
Bhusawal Unit 3	2,787	2,820	10.96%	12.09%	1.40	3.52
Chandrapur Units 3 -7	2,688	2,736	9.34%	9.84%	1.00	2.35
Khaperkheda Units 1-4	2,630	2,682	10.21%	11.01%	1.20	1.70
Koradi Unit 6	2,350	2,468	10.81%	11.60%	2.81	3.28
Nashik Units 3-5	2,754	2,809	10.75%	11.57%	1.00	2.36
Uran	2,900	2,124	1.00%	4.43%	-	-
Paras Units 3-4	2,430	2,371	10.25%	10.71%	0.50	0.99
Parli Units 6-7	2,430	2,444	10.25%	11.03%	0.50	1.61
Khaperkheda Unit 5	2,375	2,436	6.00%	6.40%	0.50	0.50
Bhusawal Units 4-5	2,375	2,460	6.00%	6.63%	0.50	0.63
Koradi Units 8-10	2,230	2,296	6.00%	6.43%	0.50	0.54
Chandrapur Units 8-9	2,375	2,409	6.00%	6.21%	0.50	0.57
Parli Unit 8	2,430	2,446	8.50%	10.44%	0.50	1.41

10.1.2.4 Key reasons for lower availability/PLF of the stations is summarized below:

- Lower gas availability in Uran
- Flooding in mines leading to almost nil rake movements in certain areas.
- Receipt of wet coal including sludge and slurry form impacting unloading timing as well as adversely impacting performance.

10.1.3 Performance in second half of FY 2024-25

10.1.3.1 For the other thermal units, the Petitioner submits that the monsoon period being over, the performance of the stations is likely to improve going forward. For Uran GTPS, the WHR A0 block is expected to be available from Dec'2024 after completion of restoration work. Accordingly, the generation only from combined cycle operations is envisaged Dec'24 onwards. In view of this, the Petitioner has considered the operational parameters for FY second half (H2) of 2024-25 (Oct-Mar) on normative basis for the projection of ARR. The Petitioner will submit the actual annual performance of the stations at the time of truing up for the kind consideration of the Hon'ble Commission.

10.1.3.2 The Petitioner requests the Hon'ble Commission to kindly consider the submissions as made in the true-up sections regarding performance parameters of the units. For sake of brevity, the Petitioner is not reiterating the same in this section.

10.2 Net Generation

10.2.1.1 Based on the actual generation for H1 (Apr-Sep) and estimated generation for H2 (Oct-Mar) considering normative parameters, the Petitioner has estimated net generation for FY 2024-25 as under:

Table 112: Station wise Net generation for FY 2024-25

Stations	Approved in Order (MU)	Revised normative (MU)	Estimated net generation (MU)
Bhusawal Unit 3	1,306.34	1,105.95	1,091.98
Chandrapur Units 3 -7	10,535.62	10,571.89	10,513.30
Khaperkheda Units 1-4	4,959.04	4,753.57	4,727.27
Koradi Unit 6	1,181.33	1,153.63	1,143.38
Nashik Units 3-5	3,940.42	3,204.01	3,174.68
Uran	2,173.76	2,392.72	2,392.72
Paras Units 3-4	3,325.15	2,930.07	2,930.07
Parli Units 6-7	3,376.76	2,760.33	2,736.36
Khaperkheda Unit 5	3,499.62	3,433.48	3,418.79
Bhusawal Units 4-5	6,999.24	6,178.09	6,136.95
Koradi Units 8-10	11,687.48	12,642.07	12,584.72
Chandrapur Units 8-9	6,999.24	6,119.20	6,105.59
Parli Unit 8	1,703.27	1,449.43	1,418.73
Total	61,687.27	58,694.44	58,374.53

10.3 Energy Charges

10.3.1.1 The Petitioner submits that the Hon'ble Commission has approved energy charge and fuel cost based on the projected generation approved in the MTR Order (Case No. 227 of 2022). However, considering the actual generation for H1 (Apr-Sep) and revised projected generation for H2 (Oct-Mar), projection of revised energy charge rate is computed.

10.3.1.2 Revision in permissible loss of GCV for FY 2024-25:

As elaborated in the true-up chapters, the Petitioner submits that the Hon'ble Commission has acknowledged the GCV loss of 750 kcal/kg for MYT period in MYT Regulations 2024. Therefore, the Petitioner most respectfully submits that the fact of actual GCV loss as admitted by the Hon'ble Commission for MYT period (FY 2025-26 to FY 2029-30) also remain relevant for period FY 2022-23 to FY 2024-25 for which True Up is being undertaken in this Petition. It is settled law that similar facts must be treated in a similar fashion so as to not be arbitrary/ discriminatory. In view of this, the Petitioner request the Hon'ble Commission to allow GCV loss of 750 kcal/kg for FY 2024-25.

10.3.1.3 Despite the Petitioner's request (in foregoing para) to the Hon'ble Commission to permit a GCV variation of at least 750 kcal/kg between the "As Billed" and "As Received" GCV, in view of the sub-judice matter before the Hon'ble APTEL, the Petitioner has calculated its claim for normative fuel costs for FY 2024-25 based on a GCV gap of 650 kcal/kg approved by the Hon'ble Commission in MTR review Order. Additionally, MSPGCL respectfully seeks appropriate relaxations for FY 2024-25 by invoking the provisions of the MERC MYT Regulations, 2019, under the clauses for "Power to Relax" and "Power to Remove Difficulties." The Petitioner requests the Hon'ble Commission to kindly consider these submissions and grant relief as deemed appropriate

10.3.1.4 As mentioned in the foregoing section, the Petitioner under the direction of MoP policy has decided to use biomass pellets for the purpose of co-firing from

October 2024 at Khaperkheda TPS. However, the Petitioner submits that for the projection of fuel cost, for October 2024 to March 2025, impact of biomass pellets has not been considered. The Petitioner shall submit the fuel cost considering the actual usage of biomass pellets at the time of True-up of FY 2024-25.

10.3.1.5 Considering the GCV gap of 650 kCal/kg, the normative fuel cost for FY 2024-25 worked out as shown below:

Normative fuel cost for FY 2024-25 considering 650 kCal/kg GCV gap (Rs. Crore)

Station	2024-25		
	Approved	Revised Normative	Actual
Bhusawal Unit 3	577.39	531.50	551.09
Chandrapur Units 3 -7	4,334.62	4,462.11	4,697.70
Khaperkheda Units 1-4	2,087.02	1,705.37	1,790.39
Koradi Unit 6	409.89	362.79	386.24
Nashik Units 3-5	1,836.28	1,540.96	1,612.82
Uran	1,473.47	1,263.84	1,281.51
Paras Units 3-4	1,161.36	1,128.33	1,148.37
Parli Units 6-7	1,727.00	1,509.02	1,528.92
Khaperkheda Unit 5	1,406.03	1,081.99	1,135.32
Bhusawal Units 4-5	2,603.58	2,473.94	2,595.89
Koradi Units 8-10	3,613.72	3,726.52	3,952.42
Chandrapur Units 8-9	2,417.04	1,962.90	2,031.96
Parli Unit 8	856.74	780.39	791.07
Total	24,504.14	22,529.65	23,503.72

10.3.1.6 Further, the Petitioner submits that considering the GCV gap of 750 kCal/kg, the station wise fuel cost for FY 2024-25 worked out as under:

Normative fuel cost for FY 2024-25 considering 750 kCal/kg GCV gap (Rs. Crore)

Station	2024-25		
	Approved	Revised Normative	Actual
Bhusawal Unit 3	577.39	535.24	551.09
Chandrapur Units 3 -7	4,334.62	4,546.35	4,697.70
Khaperkheda Units 1-4	2,087.02	1,725.77	1,790.39
Koradi Unit 6	409.89	369.17	386.24
Nashik Units 3-5	1,836.28	1,564.76	1,612.82
Uran	1,473.47	1,263.84	1,281.51
Paras Units 3-4	1,161.36	1,136.69	1,148.37
Parli Units 6-7	1,727.00	1,509.02	1,528.92
Khaperkheda Unit 5	1,406.03	1,094.79	1,135.32
Bhusawal Units 4-5	2,603.58	2,503.66	2,595.89
Koradi Units 8-10	3,613.72	3,739.59	3,952.42
Chandrapur Units 8-9	2,417.04	1,995.17	2,031.96
Parli Unit 8	856.74	780.62	791.07
Total	24,504.14	22,764.66	23,503.72

10.3.1.7 Additionally, the costs associated with the reagents for Flue Gas Desulphurization (FGD) and Selective Catalytic Reduction (SCR) systems, which are anticipated to be commissioned by September 2024, October 2024 and January 2025 for Khaperkheda Units 3-4, Koradi Unit 6 and Parli Units 6, 7 and 8 respectively, have been factored in. The cost of reagent has been computed as per norms for consumption of reagent as per Regulation 46.17 (B) MERC MYT (Second Amendment) Regulations 2023. The Petitioner requests the Hon'ble Commission to kindly consider these projections in determining the energy charges of the respective stations.

10.3.1.8 The overall energy charges for the stations for FY 2024-25 considering GCV gap of 650 kCal/kg is provided below:

Table 113: Revised Energy Charges for the stations (Rs/kWh)

Station	2024-25	
	To be Approved	Actual
Bhusawal Unit 3	4.81	5.05
Chandrapur Units 3 -7	4.22	4.47
Khaperkheda Units 1-4	3.59	3.79
Koradi Unit 6	3.14	3.38
Nashik Units 3-5	4.81	5.08
Uran	0.22	5.36
Paras Units 3-4	3.85	3.92
Parli Units 6-7	5.47	5.59
Khaperkheda Unit 5	3.15	3.32
Bhusawal Units 4-5	4.00	4.23
Koradi Units 8-10	2.95	3.14
Chandrapur Units 8-9	3.21	3.33
Parli Unit 8	5.38	5.58

10.3.2 Claim of expenses incurred due to power purchase

10.3.2.1 In light of a rising demand reaching approximately 23,500 MW since July 2024 and an anticipated supply shortage of 1,000–1,500 MW during morning and evening peak periods, MSEDCL, in August 2024, requested the Petitioner to explore options for sourcing additional power through power exchange purchases to meet the increased demand. At that time, MSEDCL also faced certain restrictions on purchasing power from the exchange.

10.3.2.2 In response, the Petitioner communicated the following to MSEDCL,

- The Power Purchase Agreement (PPA) between MSPGCL and MSEDCL, dated April 1, 2009, includes no terms or conditions addressing this matter;
- No regulations currently issued by MERC provide support for this type of purchase;

-
- MERC's State Grid Code 2020 does not contain a provision equivalent to Section 48 of the IEGC, which applies only to central sector generators;
 - Consequently, for MSPGCL to procure power through bilateral transactions or market purchases, necessary approvals, directives, or permissions from the Government of Maharashtra and Hon'ble Commission are required; otherwise, NLDC may not permit MSPGCL to engage in such transactions.
- 10.3.2.3 Notably, sourcing power from alternate suppliers could be feasible through market purchases. However, MSPGCL would need to initiate processes such as NOAR registration and membership with IEX to facilitate such procurement.
- 10.3.2.4 Due to MSEDCL's repeated requests to address power shortages and in anticipation of directives from the Government of Maharashtra (GoM), MSPGCL has taken the following preparatory steps to enable a quick response:
- As MSPGCL's Delegation of Power (DoP) did not include provisions for market power purchases, the matter was presented to the MSPGCL's Board. A Board Resolution was passed, authorizing power procurement from the Power Exchange to supply MSEDCL on a cost-to-cost basis as an alternative supply, pending GoM/MERC approval. (A copy of the MSPGCL Board Resolution No. MSPGCL/BM225/Item 225.13, dated August 28, 2024, is attached as **Annexure - 24**).
 - Registration for Proprietary Membership on the Indian Energy Exchange (IEX) was completed, including necessary formalities such as payment of registration fees and a refundable security deposit.
 - Each power station was subsequently registered as a Client on IEX, with individual Client registration fees paid for each.
 - MSPGCL initiated the registration process for the National Open Access Registry (NOAR) to enable power exchange transactions for specific units/stations, completing the required formalities with MSLDC/NLDC. However, clearance from MSLDC/NLDC was not issued due to a lack of clarity on the provisions under which such power procurement would proceed
- 10.3.2.5 On September 22, 2024, MSEDCL verbally informed MSPGCL that the process of obtaining GoM directives has been initiated and would be finalized shortly. Given an acute shortfall during peak hours that was leading to significant load shedding, MSEDCL continued to request MSPGCL to pursue alternative power procurement for the anticipated evening peak shortfall. In response, MSPGCL asked MSEDCL to assist in securing NOAR clearance, arrange advance payments for the procurement, and provide technical support from the MSEDCL Power Purchase Team for executing transactions on IEX.
- 10.3.2.6 After MSEDCL deposited Rs. 10 crore into MSPGCL's IEX settlement account on September 22, 2024, for power purchases, and with standing clearance obtained from MSLDC for power procurement on behalf of Chandrapur Unit #9 (which was under Capital Overhaul outage), MSPGCL began power procurement from the Real-Time Market (RTM) on IEX. This was initiated at 20:15 hrs for three blocks, in accordance with MSEDCL's requirements, with support from the MSEDCL team.
-

10.3.2.7 on September 23, 2024, MSPGCL received directives from the Energy Department of the Government of Maharashtra, as per Letter Ref. No. D.O. No.-2024/C.R. 166/Energy-5 dated September 23, 2024, instructing MSPGCL to ensure full-capacity operation of all operational power plants to meet state demand. The directive also required MSPGCL to arrange for alternate power sources in cases of technical issues, insufficient coal supply, or forced outages. (A copy of the GoM directive dated September 23, 2024, is attached as **Annexure - 24**)

10.3.2.8 The specific directives issued under the notification are as follows:

“....

...

In the light of the present emergent circumstances, the following directions are issued in the public interest under Section-11 of the Electricity Act:

a) MSPGCL is directed to ensure operation and generation of electricity from all its operational power plants to their full capacity to meet the immediate demand in the state as per requirement of PPA holder. This includes optimizing the operation of thermal, hydro, and renewable energy plants.

b) Utilization of Available Resources: MSPGCL should explore all available resources, including Indigenous fuel procurement and maintenance scheduling, to enhance generation capacity wherever feasible.

c) Power from alternate source: In case of any technical glitches in supply of sufficient coal/ quality of coal or any force outage of plants, MSPGCL shall arrange power in consultation with PPA holder from all available alternate sources for declaration of full availability. It is instructed that MSPGCL to submit reasons for opting to deliver power from alternate source. It may be noted that the pass-through of the actual additional burden due to such alternate power would be allowed by the appropriate: Commission. The payment shall be made to the MSPGCL on a weekly basis by DISCOMs. Further, for computation of fixed charges, the availability on account of alternate source will not be considered.

d) Reporting: MSPGCL must provide daily updates on generation status, fuel availability, and any operational challenges encountered to the Department of Energy, SLDC and PPA holder.

e) Compliance: All necessary steps should be taken to comply with these directions promptly and effectively. keeping in mind the importance of ensuring a stable power supply for the citizens of Maharashtra.

This order is to be followed with immediate effect and shall remain valid upto 31.12.2024.

This directive is issued in the interest of public safety and welfare, and compliance is to be done with immediate effect.”

10.3.2.9 On September 25, 2024, a corrigendum was issued (a copy of the GoM direction corrigendum dated September 25, 2024, is attached as Annexure- 24) to clarify the directives issued on September 23, 2024, stating that:

“c) Power from alternate source: Alternate power supply is allowed for all units of MSPGCL which are under forced outage only, as per Indian Electricity Grid Code, 2023 Regulation No. 48 (1).”

10.3.2.10 By September 25, 2024, MSPGCL completed Client Registration for all its thermal stations.

10.3.2.11 In compliance with the directives from the GoM, MSPGCL carried out power procurement as an alternative supply from September 22, 2024, to October 2, 2024, in coordination with MSEDCL and MSLDC. Initially, from September 22 to September 25, 2024, procurement was conducted for units under outage or units with limited load capacity. Following the issuance of the GoM corrigendum, procurement focused on units experiencing forced outages. For each purchase, MSEDCL communicated the block-wise power requirements and acceptable price range, which guided MSPGCL’s bidding on IEX. Power was then scheduled as an alternate supply according to IEX settlements. Additionally, MSPGCL declared and continuously updated the availability of this alternate capacity on the MSLDC Scheduling Portal to ensure scheduling of power to MSEDCL.

10.3.2.12 Subsequently, as per email from NLDC 01.10.2024, it is stated that,

“...curtailment of access imposed on Maharashtra State Electricity Distribution Co. Ltd (MSEDCL) as per LPSC Rules stands withdrawn from 00:00 hrs. of 02-10-2024.”

10.3.2.13 Given the withdrawal of MSEDCL’s restrictions on power purchases, MSEDCL has not communicated any requirement for power procurement from October 3, 2024, onward up to the date of filing this petition.

10.3.2.14 Furthermore, the directives issued on September 23, 2024, remain in effect until December 31, 2024. Accordingly, MSPGCL may need to arrange for alternate power supply if required by MSEDCL during the period these directives are active.

10.3.2.15 The following table provides details of the quantum and cost of power purchased by MSPGCL on IEX between September 22, 2024, and October 2, 2024, as an alternate power supply in compliance with the GoM directives dated September 23, 2024 (and the corrigendum dated September 25, 2024) under Section 11 of the Electricity Act, 2003.

Table 114: Details of power procured by MSPGCL from IEX

Particulars	Amount
Power quantum settled and Drawal on IEX (MWh)	19829.31
Base Invoice in (Rs.)	122003699.40
NLDC Application Charges (Rs.)	426.94
CTU Charges (Rs.)	8366131.39

Particulars	Amount
STU Charges (Rs.)	9731960.93
SLDC Charges (Rs.)	105750.00
IEX Fees (Rs.)	380986.15
IGST (Rs.)	71385.57
Final Payment to IEX (Rs.)	140660340.40

Table 115: Other incidental costs incurred by MSPGCL

Particulars	Amount
IEX Membership fees in Rs (excluding refundable deposit)	14,75,000
IEX Client Registration charges in Rs. (Rs. 1,18,000 X 10)	11,80,000
SLDC NOC charges in Rs. (@Rs. 7500 per NOC)	1,50,000
Total other incidental charges in Rs.	28,05,000

Table 116: Summary report of Power Purchase

Particulars	Amount
Power purchase in Mus	19.83
Payment to IEX in Rs. Crs.	14.07
Total other incidental charges in Rs. Crs.	0.28
Total expenses for power procurement Rs. Crs.	14.35

10.3.2.16 Since these power procurement actions were undertaken by MSPGCL for the first time due to exigent circumstances, related accounting, finance, and tax compliance formalities are being finalized with necessary adjustments to SAP mapping and accounting policies.

10.3.2.17 Regarding payment for this power procurement, the GoM directives dated September 23, 2024, specify that,

“The payment shall be made to the MSPGCL on a weekly basis by DISCOMs.”.

10.3.2.18 Accordingly, MSPGCL has submitted claims to MSEDCL, as the PPA holder, for either adjustment against the advance payment or reimbursement of the power procurement expenses.

10.3.2.19 Additionally, the directives specify the following regarding the pass-through of the actual additional costs incurred for such alternate power:

“It may be noted that the pass-through of the actual additional burden due to such alternate power would be allowed by the appropriate Commission.”

10.3.2.20 Accordingly, the above details are submitted to the Hon'ble Commission for review, with a request to approve a pass-through of expenses incurred for alternate power in FY 2024-25. These expenses were undertaken in compliance with GoM directives under Section 11 of the Electricity Act, 2003, and were essential to ensure a stable power supply for Maharashtra's citizens. In this petition, MSPGCL includes these expenses up to the present date as part of the Annual Revenue Requirement submitted for the provisional true-up for FY 2024-25.

10.3.2.21 The Petitioner respectfully requests that the Hon'ble Commission consider this submission and allow a pass-through of the actual additional costs incurred for alternate power.

10.4 Fixed Charges

10.4.1 Background:

10.4.1.1 The Petitioner has submitted the overall fixed charges of the stations for FY 2024-25 based on the following assumptions:

- As per Regulations, for the first half of FY 2024-25 i.e. April 2024-Sept 2024 the unaudited actual data is considered.
- For the remaining part of FY 2024-25, fixed cost is projected as per related provisions in MERC MYT Regulations, 2019.

10.4.2 Proposed Capitalization in FY 2024-25

10.4.2.1 The Petitioner submits that it has proposed to capitalize Rs. 2333.17 Crores in FY 2024-25 against the approved capitalization of Rs. 3699.06 Crores. The station/ unit wise details of capitalization approved for FY 2024-25 vis-à-vis the revised projections are provided below:

Table 117: Capitalization for FY 2024-25 (Rs. Crore)

Sr. No.	Station	FY 2024-25	
		MTR	Provisional True up
		Approved	Estimated
1	Bhusawal Unit 3	-	5.63
2	Chandrapur Units 3 -7	920.43	439.67
3	Khaperkheda Units 1-4	101.01	601.56
4	Koradi Unit 6	-	158.51
5	Nashik Units 3-5	10.72	9.66
6	Uran	8.50	92.40
7	Paras Units 3-4	381.66	74.54
8	Parli Units 6-7	145.02	66.71
9	Khaperkheda Unit 5	282.01	298.02
10	Bhusawal Units 4-5	481.48	24.41
11	Koradi Units 8-10	997.00	340.89
12	Chandrapur Units 8-9	220.27	95.82
13	Parli Unit 8	89.24	17.11
14	SHP	17.76	47.93
15	Bhira	-	1.31
16	Koyna	43.96	58.86
17	Tillari	-	0.13
	Total	3,699.06	2,333.17

10.4.2.2 The Petitioner submits that in some of the stations there are deviations between approved and actual capitalization which is on account of subsequent approval of schemes by the Hon'ble Commission and spill-over of prior-period schemes which have already been approved in the previous orders.

10.4.3 Operations and Maintenance Expenses

10.4.3.1 The station-wise O&M expenses have been submitted based on the actual from April 2024 to September 2024 and projections for the remaining six months. As per Regulations, the water charges for the units are separately considered as part of O & M costs. The Petitioner submits that while approving the normative O&M expense for FY 2024-25 in MTR Order, the Hon'ble Commission has considered escalation rate of 3.94%, based on the available numbers of WPI and CPI for FY 2021-22. However, as per available numbers of WPI and CPI (for FY 2023-24), escalation rate has worked out to 4.36% which has been considered to calculate revised normative O&M expenses for FY 2024-25. The working of the escalation rate for FY 2024-25 is tabulated as below:

Table 118: Working of escalation rate for FY 2024-25

Year	WPI	Percentage Annual Change in WPI	CPI	Percentage Annual Change in CPI
FY 2018-19	119.79		299.92	
FY 2019-20	121.80	1.68%	322.50	7.53%
FY 2020-21	123.38	1.29%	338.69	5.02%
FY 2021-22	139.41	13.00%	356.06	5.13%
FY 2022-23	152.53	9.41%	377.62	6.05%
FY 2023-24	151.42	-0.73%	397.20	5.19%
Average from FY 2018-19 to FY 2023-24	4.93%		5.78%	
Weights	50%		50%	
Escalation Factor	5.36%			
Efficiency Factor	1%			
Escalation Factor Net of Efficiency Factor	4.36%			

Expenses related to Hydro Colony

10.4.3.2 Regulation 49.1 (c) of MERC (MYT) Regulations 2019 provides that O&M expense incurred by Hydro generating stations on its housing colonies and related expenses, including medical and other facilities and on their operating staff shall be allowed separately. The relevant excerpt of the said regulation is reproduced as below:

"49 Operation and Maintenance Expenses for Hydro Generating Stations

49.1 For Existing Stations:

.....

c) The Operation and Maintenance expenses incurred by the Generating Company on its housing colonies and related expenses, including medical and other facilities, and on their operating staff shall be excluded from (a) and (b) above and allowed separately, subject to prudence check."

10.4.3.3 In view of aforesaid regulations, the O&M expense estimated to be incurred by Hydro generating stations on its housing colonies and related expenses are summarised as under:

Table 119: O&M expense related to Hydro housing colonies of Hydro stations for FY 2024-25 (Rs Crore)

Sr. No.	Station	Hydro Colony related expense
1	Koyna	1.14
2	Bhira	0.06
3	Tillari	0.05
4	SHP	1.43
	Total	2.68

10.4.3.4 Petitioner submits that the estimated value for FY 2024-25 has been calculated as average of FY 2022-23 and FY 2023-24. The Petitioner requests the Hon'ble Commission to approve the O&M expenses towards Hydro housing colonies at actuals separately, over and above normative O&M expenses as per Regulation 49.1 of MERC MYT Regulations 2019.

Impact of Pay revision

10.4.3.5 As mentioned in the true-up section, the Hon'ble Commission has approved normative O&M expense based on the historical average O&M expenses with escalation as per norms provided in the MERC (MYT) Regulations 2019. Further, in MTR Order impact of pay revision has been approved separately for FY 2024-25 for Rs. 217.12 Crore based on the actual amount for FY 2021-22 with escalation based on WPI/CPI indices. Considering the actual WPI and CPI indices numbers, as per escalation rate of 4.36% impact of pay revision approved by the Hon'ble Commission for FY 2024-25 has recomputed to Rs.220.87 Crore for old and new generating station. The Petitioner submits that O&M expenses projected for FY 2024-25 are including the impact of pay revision corresponding to aforementioned pay revision amount projected considering escalation rate applicable for FY 2024-25.

10.4.3.6 Further, the Petitioner has announced a pay revision for its employees through circulars no. 546, 548, and 549 dated 09.08.2024. As per these circulars, the pay revision is effective from 01.04.2023. In light of this, the Petitioner respectfully requests the Hon'ble Commission to approve the pay revision amount of Rs. 302.24 Crore for FY 2024-25 (for old and new stations). It is submitted that the revised salary payments commenced with the August 2024 payroll, and the arrears will be disbursed during FY 2024-25. Therefore, the Petitioner requests the Hon'ble Commission to approve the pay revision impact and subsequently allow for the adjustment of the differential amount based on actual disbursements.

Table 120: Pay Revision impact for FY 2024-25 considering revised escalation rate

Station	Pay revision approved in MTR Order	Restated Pay revision amount approved in MTR	Pay revision amount as per Circular dated
Bhusawal Unit 3	8.22	8.36	8.54
Chandrapur Units 3 -7	34.60	35.20	65.30
Khaperkheda Units 1-4	18.00	18.31	27.01
Koradi Unit 6	13.06	13.28	14.76
Nashik Units 3-5	20.04	20.38	20.84
Uran	7.20	7.33	9.21
Paras Units 3-4	11.05	11.24	16.53
Parli Units 6-7	13.47	13.70	17.29
Khaperkheda Unit 5	6.75	6.87	9.16
Bhusawal Units 4-5	16.96	17.25	23.88
Koradi Units 8-10	23.29	23.69	24.99
Chandrapur Units 8-9	13.03	13.26	13.67
Parli Unit 8	5.70	5.80	8.65
SHP	13.87	14.11	22.64
Bhira	0.70	0.71	0.92
Koyna	9.73	9.89	17.45
Tillari	1.46	1.49	1.40
Total	217.12	220.87	302.24

Amount revised considering revised escalation rate for FY 2024-25

* Pay revision amount for FY 2024-25 projected considering escalation on provision of pay revision for FY 2023-24 as per Circular dated 09.08.2024

Impact of Wage revision

10.4.3.7 The Petitioner vide circular No. 464/10720 and 465/10721 dated 14.10.2024 has announced wage revision w.e.f. 01.04.2024 for contractual staff. The Petitioner is in process of assessing the impact of pay revision station wise. It is submitted that tentative impact of wage revision for FY 2024-25 worked out to ~ Rs.78.06 Crore. The Petitioner humbly requests the Hon'ble Commission to take cognizance of the revised labour wage rates and approve the additional costs over the normative O&M costs. The relevant circulars are attached as **Annexure -25**.

O&M Costs for FGD/SCR installation

10.4.3.8 The Petitioner respectfully submits that the O&M costs associated with the installation of FGD/SCR systems, which are anticipated to be commissioned by September 2024, October 2024 and January 2025 for Khaperkheda Unit 3-4, Koradi Unit 6 and Parli Unit 6,7 and 8 respectively, have been duly considered. The Petitioner requests the Hon'ble Commission to approve the costs.

10.4.3.9 The Petitioner has calculated the O&M expenses for the FGD/SCR systems based on the Regulation 47.3 of the MERC MYT Second Amendment Regulation, 2023. The excerpt of the regulation is provided below,

"47.3 The operation and maintenance expenses on account of Emission Control System in coal or lignite based thermal generating station shall be 2% of the admitted capital expenditure (excluding interest during construction) as on its date of commercial operation, which shall be escalated annually @3.5% during the Control Period ending on 31st March 2025:

Provided that income generated from sale of gypsum or other by-products shall be reduced from the operation and maintenance expenses”

10.4.3.10 The projected FGD/SCR O&M costs for October 2024 to March 2025 are tabulated below for the kind consideration of the Hon’ble Commission.

Table 121: Working of O&M cost towards Emission Control System for FY 2024-25

Stations	CoD by	Day considered for calculation (Days)	Capitaliation (Rs. Crore)	%	O&M expenses (Rs. Crore)
	a	b	c	d	e=c*d*b/365
Khaperkheda Units 3-4	30-09-2024	182.00	123.91	2%	1.24
Koradi Unit 6	31-10-2024	151.00	93.33	2%	0.77
Parli Units 6-7	31-01-2025	59.00	-	2%	-
Parli Units 8	31-01-2025	59.00	-	2%	-

10.4.3.11 The Petitioner respectfully submits that, as stated in the earlier sections, the normative O&M expenses for Koradi Unit 6, as approved by the Hon’ble Commission in the MTR Order from FY 2022-23 onwards, were based on the operation of both Units 6 and 7. However, with the retirement of Unit 7 and only Unit 6 remaining in operation, the Petitioner has considered the normative O&M expenses for Koradi Unit 6 as two-thirds of the amount approved by the Hon’ble Commission for FY 2021-22 in the MTR Order, along with the applicable escalation up to FY 2023-24. The Petitioner submits that the two-thirds proportion has been considered in view of common auxiliaries that cannot be dismantled. Accordingly, the revised normative O&M expenses for Koradi Unit 6 for FY 2024-25 have been calculated.

10.4.3.12 As detailed in the earlier sections, the CEA, in its report on O&M norms for Koradi Units 8-10, observed that the O&M expense norm for FY 2020-21 was significantly reduced by 7.7% from FY 2019-20 value. In light of this, the Petitioner has recalculated the revised normative O&M expenses, based on the CERC norm of Rs. 25.78 Lakhs/MW for FY 2024-25. The Petitioner respectfully requests the Hon'ble Commission to approve the normative O&M expenses in accordance with the O&M norm of Rs. 25.78 Lakhs/MW, as set out in the CERC Tariff Regulations 2024.

10.4.3.13 The Petitioner submits that, under Regulation 47.1(g), IT-related expenses may be claimed over and above the normative O&M expenses. The relevant excerpt of the regulation is provided below,

“g) A Generating Company may undertake Opex schemes for system automation, new technology and IT implementation, etc., and, such expenses may be allowed over and above normative O&M Expenses, subject to prudence check by the Commission:”

10.4.3.14 In view of the above, the Petitioner submits the IT expenses estimated for FY 2024-25, as per the table provided below.

Table 122: IT Expenses for FY 2024-25 (Rs. Crore)

Particulars	FY 2024-25
IT expenses	19.69

10.4.3.15 The Petitioner submits that currently, IT expenses are recorded under A&G expenses in Head Office (H.O) expenses and subsequently allocated to the stations. The Petitioner will provide a station-wise breakdown of IT expenses within A&G expenses during the course of proceedings of this Petition. Currently, IT expenses are included in A&G expenses, and therefore the Petitioner respectfully requests the Hon'ble Commission to allow these IT expenses separately, in addition to the normative O&M expenses, while approving the O&M expenses for FY 2024-25 in the provisional True-Up, based on the details that will be provided by the Petitioner during proceedings of this Petition.

10.4.3.16 Additional O&M expenses on account of repair/rewinding of Bhira TR Generator Transformer:

Background:

Bhira Tail Race (Bhira TR) Hydro Power Station (BRHTPS) is having generating capacity of 2 x 40 MW & connected to 220 KV grids through Kandalgaon sub – station. It runs as per LD (Kalwa) requirement for peak hours. Generating units were commissioned in 1987 – 88 & taken over by MSEB in 1990.

This power station is designed to work daily for 2 and half hours during the peak hours in which the total annual generation is 70 MUs. Each unit of BTRHPS is equipped with 50 MVA (11/235KV) generator transformers which are in service since commissioning (i.e. since 1988). The manufacturing date of the transformers is 1984.

Issue:

The Petitioner respectfully submits that on 12.08.2024, Unit-1 of the Bhira TR Power Station experienced an operational disruption due to issues with the generator transformer, resulting in oil spillage. Following this incident, inspection teams from M/s Lustre and MSPGCL carried out tests and identified a winding-related issue. Further analysis of the oil samples revealed high levels of dissolved gases, indicative of severe internal faults.

The oil samples were subsequently sent to M/s Reliable Transoil Testing Lab, and the samples were also shared with the Central Coal and Oil Testing Lab of MSPGCL. Both laboratories recommended further inspection and filtration of the transformer oil. Additionally, the oil test reports were shared with M/s BHEL, which, after reviewing the findings, informed the Petitioner that the transformer had surpassed its average operational life of 30 years.

On 10.09.2024, M/s Lustre conducted a site inspection of the transformer. The visual inspection revealed burn marks, and a subsequent report indicated that

rewinding of the transformer was necessary. The Petitioner submits that, while Unit-2 of the Bhira TR Power Station remains operational, the urgency to repair Unit-1 is critical due to the potential loss of a key power source during peak operational hours.

Petitioner's Submission:

The Petitioner respectfully submits budgetary offers were solicited from various agencies for the repair/rewinding of the Generator Transformer at the Bhira TR power station. Upon evaluation, the budgetary offer from M/s Vishwas Power Engineering Services Pvt. Ltd., Nagpur, emerged as the lowest (L1) bid, quoting an amount of Rs. 2.54 Crore for the required works. Accordingly, the Petitioner has considered the cost of Rs. 2.54 Crore as the estimated expenditure for the repair and rewinding of the Generator Transformer.

The Petitioner respectfully requests the Hon'ble Commission to kindly approve the costs incurred for the repair and rewinding of the Generator Transformer at the Bhira TR Power Station and permit these expenses to be accounted for separately over and above the stipulated normative O&M expenses. Additionally, the Petitioner humbly requests that the Hon'ble Commission exclude the aforementioned costs from the computation of the sharing of gains and losses.

10.4.3.17 Based on the above submissions, the overall O & M expenses including water charges and pay revision impact for the stations is provided in the table below:

Table 123: Comparison of approved O&M expenses and Revised normative for FY 2024-25 (Rs. crore)

Station/Unit	Approved in MYT Order					Revised Normative					
	Normative O&M expenses	Pay Revision	Water charges	Other Charges	Total O&M expenses	O&M expenses	Pay Revision	Water charges	Other Charges	Hydro colony related	Total O&M expenses
Bhusawal Unit 3	104.45	8.22	11.26	3.74	127.67	114.62	8.54	16.34	6.39		145.89
Chandrapur Units 3 -7	642.78	34.60	10.97	46.50	734.85	689.07	65.30	26.89	26.93		808.19
Khaperkheda Units 1-4	300.61	18.00	60.09	28.92	407.62	324.11	27.01	62.24	17.46		430.81
Koradi Unit 6	190.36	13.06	38.73	13.40	255.54	142.38	14.76	41.88	2.54		201.56
Nashik Units 3-5	294.90	20.04	13.58	28.66	357.17	320.37	20.84	46.17	27.48		414.85
Uran	98.59	7.20	1.12	0.14	107.06	107.62	9.21	1.46	-		118.29
Paras Units 3-4	160.65	11.05	4.28	17.44	193.41	171.89	16.53	12.50	7.29		208.22
Parli Units 6-7	160.65	13.47	13.62	8.97	196.71	174.35	17.29	37.99	26.91		256.55
Khaperkheda Unit 5	106.80	6.75	35.86	9.18	158.60	113.67	9.16	43.12	8.00		173.95
Bhusawal Units 4-5	213.60	16.96	3.14	31.45	265.16	230.85	23.88	20.11	31.13		305.98
Koradi Units 8-10	341.95	23.29	81.80	29.73	476.76	534.13	24.99	99.06	25.87		684.05
Chandrapur Units 8-9	213.60	13.03	5.71	53.84	286.18	226.86	13.67	26.24	12.82		279.59
Parli Unit 8	80.33	5.70	8.45	5.89	100.37	86.12	8.65	20.03	20.68		135.48
SHP						143.09	22.64	-	-	1.43	167.16
Bhira	235.50	25.75	-	0.31	261.57	7.23	0.92	-	-	0.06	8.22
Koyna						100.36	17.45	-	-	1.14	118.95
Tillari						15.08	1.40	-	-	0.05	16.53
Total	3,144.76	217.12	288.61	278.17	3,928.67	3,501.81	302.24	454.03	213.51	2.68	4,474.26

Table 124: Actual O&M expense vs approved and revised normative O&M expense for FY 2024-25 (Rs. crore)

Station/Unit	Approved in MYT Order	Revised Normative	Actual					
	Total O&M Expenses	Total O&M expenses	O&M expenses	Pay Revision	Water charges	Other Charges	Hydro colony related	Total O&M expenses
Bhusawal Unit 3	127.67	145.89	161.04	8.54	16.34	6.39		192.32
Chandrapur Units 3 -7	734.85	808.19	1,063.03	65.30	26.89	26.93		1,182.15
Khaperkheda Units 1-4	407.62	430.81	378.42	27.01	62.24	17.46		485.12
Koradi Unit 6	255.54	201.56	107.27	14.76	41.88	2.54		166.44
Nashik Units 3-5	357.17	414.85	279.84	20.84	46.17	27.48		374.33
Uran	107.06	118.29	110.63	9.21	1.46	-		121.30
Paras Units 3-4	193.41	208.22	241.23	16.53	12.50	7.29		277.56
Parli Units 6-7	196.71	256.55	221.29	17.29	37.99	26.91		303.49
Khaperkheda Unit 5	158.60	173.95	142.15	9.16	43.12	8.00		202.43
Bhusawal Units 4-5	265.16	305.98	257.22	23.88	20.11	31.13		332.34
Koradi Units 8-10	476.76	684.05	280.34	24.99	99.06	25.87		430.25
Chandrapur Units 8-9	286.18	279.59	864.64	13.67	26.24	12.82		917.37
Parli Unit 8	100.37	135.48	127.23	8.65	20.03	20.68		176.58
SHP	261.57	167.16	131.82	22.64	-	-	1.43	155.88
Bhira		8.22	6.36	0.92	-	-	0.06	7.35
Koyna		118.95	146.67	17.45	-	-	1.14	165.26
Tillari		16.53	7.82	1.40	-	-	0.05	9.26
Total	3,928.67	4,474.26	4,526.99	302.24	454.03	213.51	2.68	5,499.44

10.4.4 Interest Expenses

10.4.4.1 Tariff Regulations provides that the interest on the loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest. The relevant excerpt of the Regulation is reproduced as under,

“30.6 The interest on loan shall be computed on the normative average loan of the year by applying the weighted average rate of interest:

Provided that at the time of Truing-up, the normative average loan of the concerned year shall be considered on the basis of the actual asset capitalisation approved by the Commission for the year.”

10.4.4.2 Further, the regulations provide that the repayment for the year shall be deemed to be equal to the depreciation allowed for that year. The relevant excerpt of the Regulation is reproduced as under,

“30.3 The loan repayment during each year of the Control Period from FY 2020-21 to FY 2024-25 shall be deemed to be equal to the depreciation allowed for that year.”

10.4.4.3 The Petitioner has considered the funding of additional capitalization at a normative debt equity ratio of 70:30. The rate of interest considered is the weighted average interest rate on the basis of the actual loan portfolio at the beginning of FY 2024-25. MSPGCL has computed the interest on long term loans by applying the weighted average rate of interest on the average of opening and closing balance of loans.

10.4.4.4 The Petitioner submits that Head office (HO) Assets are procured from Head office and it is being funded through debt and equity. Hence, the Petitioner is entitled to recover the cost of capital, i.e., interest on loan and return on equity along with depreciation on HO Assets. The Petitioner has calculated interest on

loan amount considering 70% normative loan at average interest rate at MSPGCL level. Further, interest on loan of HO Assets are apportioned station wise in the portion of station wise interest on long term loan.

10.4.4.5 The Petitioner has considered the actual finance charges for FY 2023-24 as estimates for FY 2024-25. The interest expenses including other finance charges and interest on HO Assets for various stations estimated for FY 2024-25 are provided in table below:

Table 125: Interest & other finance charges for FY 2024-25 (Rs. crore)

Station/Unit	Approved			Actual			
	IOL	FC	Total	IOL	IOL - HO	FC	Total
Bhusawal Unit 3	-	0.29	0.29	-	-	0.41	0.41
Chandrapur Units 3 -7	84.42	1.31	85.74	62.58	0.03	3.78	66.39
Khaperkheda Units 1-4	30.79	0.57	31.37	24.29	0.01	1.65	25.95
Koradi Unit 6	19.28	0.29	19.56	19.95	0.01	0.41	20.37
Nashik Units 3-5	0.55	0.99	1.54	2.00	0.00	2.54	4.54
Uran	7.70	0.99	8.69	12.24	0.01	2.06	14.31
Paras Units 3-4	28.03	0.78	28.80	20.96	0.01	1.21	22.18
Parli Units 6-7	5.77	0.63	6.40	2.60	0.00	0.98	3.59
Khaperkheda Unit 5	56.71	0.75	57.46	62.85	0.03	3.37	66.25
Bhusawal Units 4-5	144.30	0.78	145.07	128.15	0.06	2.98	131.20
Koradi Units 8-10	519.34	3.32	522.66	458.67	0.21	4.14	463.02
Chandrapur Units 8-9	289.23	1.57	290.80	245.86	0.11	4.20	250.17
Parli Unit 8	90.56	0.43	90.99	82.58	0.04	0.55	83.17
SHP	-	-	-	2.86	0.00	0.00	2.87
Bhira			-	0.09	0.00	0.00	0.10
Koyna			-	1.72	0.00	0.01	1.73
Tillari			-	0.27	0.00	0.00	0.27
Total	1,276.68	12.68	1,289.36	1,127.69	0.51	28.31	1,156.50

10.4.5 Depreciation

10.4.5.1 The Petitioner submits that the depreciation for FY 2024-25 has been computed in accordance with Regulations 27 of the MERC (MYT) Regulations, 2019. The depreciation has been computed based on straight line method at the rates specified in the Regulations on the opening balance of the GFA as well as on the assets added during each year. The details of depreciation expenses have been shown in the specific formats annexed to this Petition.

Table 126: Depreciation for FY 2024-25 (Rs. Crore)

Station/Unit	Approved			Revised Estimate		
	on GFA	HO	Total	on GFA	HO	Total
Bhusawal Unit 3	18.94	0.30	19.24	6.11	0.07	6.18
Chandrapur Units 3 -7	212.77	2.72	215.49	153.97	0.68	154.65
Khaperkheda Units 1-4	64.22	1.68	65.90	138.23	0.44	138.67
Koradi Unit 6	35.76	0.82	36.59	28.28	0.21	28.48
Nashik Units 3-5	42.47	0.52	42.99	8.40	0.12	8.53
Uran	73.42	1.09	74.51	18.77	0.27	19.04
Paras Units 3-4	166.28	-	166.28	80.07	0.51	80.58
Parli Units 6-7	87.60	2.42	90.02	78.63	0.47	79.11
Khaperkheda Unit 5	197.25	2.30	199.55	198.31	0.59	198.90
Bhusawal Units 4-5	353.02	4.32	357.34	343.93	1.02	344.95
Koradi Units 8-10	725.57	8.48	734.05	704.62	2.03	706.64
Chandrapur Units 8-9	362.39	4.06	366.45	343.48	0.98	344.47
Parli Unit 8	102.51	1.20	103.71	98.86	0.30	99.15
SHP	18.88	0.19	19.07	3.50	0.01	3.51
Bhira			-	0.21	0.00	0.21
Koyna			-	9.53	0.04	9.57
Tillari			-	0.70	0.00	0.71
Total	2,461.08	30.11	2,491.19	2,215.60	7.74	2,223.34

10.4.6 Interest on Working Capital (IoWC)

10.4.6.1 Regulations 32.1 of the MERC (MYT) Regulations, 2019 provides the norms for computation of the Working capital for generating companies. Relevant extract of the same as shown below:

“32.1

.....

(f) Rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points:”

10.4.6.2 Further, it is submitted that Regulation 32.1 (aa) provides for additional working capital for Emission control system of coal or lignite based thermal generating stations. The relevant excerpt of the said Regulation is provided below:

“(aa) In case of Emission Control System of coal or lignite based thermal generating stations, working capital in addition to working capital computed in accordance with Regulation 32.1 (a) shall be allowed covering:

(i) Cost of limestone or reagent towards stock for 20 days for generation corresponding to the target availability;

(ii) Advance payment for 30 days towards cost of reagent for generation corresponding to the target availability;

(iii) Normative Operation and maintenance expenses in respect of emission control system for one month;

(iv) Maintenance spares at one per cent of the opening Gross Fixed Assets in respect of emission control system.”

10.4.6.3 In light of above, interest on working capital is computed and detailed computation of station-wise Interest on Working Capital is provided in the prescribed forms of the Hon’ble Commission.

10.4.6.4 The rate of interest considered for computation of Interest on Working Capital, calculated as per the Regulation 32.1 (f), is 10.45% (SBI MCLR – Base rate as on 15.10.2024 – 8.95% plus 150 basis point). The station-wise Interest on Working capital is provided in the table below:

Table 127: Interest on Working Capital for FY 2024-25 (Rs. crore)

Station	IOWC Approved in MYT Order	Normative IoWC as per norms in MERC Regulations 2019
Bhusawal Unit 3	19.29	26.33
Chandrapur Units 3 -7	142.49	213.21
Khaperkheda Units 1-4	71.11	92.19
Koradi Unit 6	17.60	24.37
Nashik Units 3-5	58.87	75.37
Uran	45.84	57.14
Paras Units 3-4	43.02	59.65
Parli Units 6-7	56.83	75.38
Khaperkheda Unit 5	49.77	60.55
Bhusawal Units 4-5	91.74	128.67
Koradi Units 8-10	142.34	217.26
Chandrapur Units 8-9	88.31	109.96
Parli Unit 8	30.50	42.29
SHP	12.19	12.45
Bhira	0.00	0.20
Koyna	0.00	13.34
Tillari	0.00	0.00
Total	869.88	1208.35

10.4.6.5 Further, as detailed out in the earlier section, MSEDCL has participated in the liquidation of arrears scheme for total amount of Rs.13801 Crore (Principal amount of Rs.8881 Crore and LPS of Rs.4920 Crore). The Petitioner most respectfully submits that current scheme of LPS does not permit the levy of LPS on the agreed arrears. Hence, the Petitioner has been losing the interest amount on the balance outstanding agreed dues. In view of this, the Petitioner has calculated the impact of loss of interest on such amount for the period of 48 months as per LPS scheme at the rate of 10.40%. The loss of interest on outstanding amount of Rs.13801 Crore for FY 2024-25 worked out to Rs. 641.93 Crore. Considering that deferment of recovery of such amount would arise the requirement of working capital for the Petitioner, hence the Petitioner requests the Hon'ble Commission to allow normative IoWC amount of Rs. 641.93 Cr over and above the normative IoWC amount computed in above table and request the Hon'ble Commission to work out sharing of gain and losses on IoWC amount accordingly.

10.4.6.6 In view of above, claim of normative IoWC including amount of loss of interest on outstanding amount of Rs. 13801 Cr. and estimated IoWC would be as under

Table 128: Normative IoWC including loss of Interest and estimated IoWC for FY 2024-25

Particulars	Approved in MTR	Estimated IoWC
Station wise total	869.88	1,208.35
Add: Loss of interest		641.93
Total	869.88	1,850.28

10.4.7 Return on Equity

10.4.7.1 The Petitioner has considered the base rate of 14% for the purpose of computing the ROE. The closing balance of equity capital for FY 2023-24 is considered as the opening balance of equity capital for FY 2024-25. The equity addition for FY 2024-25 has been considered as equivalent to 30% of capitalization for the year.

10.4.7.2 MSPGCL submit that additional ROE will be claimed in the final True Up for FY 2024-25. Accordingly, the Return on Equity is computed as per the Regulations 28 of MERC (MYT) Regulations, 2019.

10.4.7.3 The Petitioner submits that Head office (HO) Assets are procured through Head office and it is being funded through debt and equity. Hence, the Petitioner is entitled to recover the cost of capital, i.e., interest on loan and return on equity along with depreciation on HO Assets. The Petitioner has calculated RoE on equity amount considering 30% normative equity at base rate of 14%. Further, RoE on HO Assets are apportioned station wise in the portion of station wise RoE.

10.4.7.4 The station-wise RoE for FY 2024-25 is provided below:

Table 129: RoE for FY 2024-25 (Rs. crore)

Station	FY 2024-25			
	Approved in MYT	RoE	ROE-HO	Total RoE estimated
Bhusawal Unit 3	13.64	13.54	0.00	13.54
Chandrapur Units 3 -7	161.54	146.22	0.03	146.25
Khaperkheda Units 1-4	159.39	156.71	0.04	156.75
Koradi Unit 6	41.97	41.39	0.01	41.40
Nashik Units 3-5	36.70	35.67	0.01	35.68
Uran	48.07	45.22	0.01	45.23
Paras Units 3-4	143.88	136.50	0.03	136.53
Parli Units 6-7	136.22	133.68	0.03	133.71
Khaperkheda Unit 5	121.47	120.53	0.03	120.55
Bhusawal Units 4-5	194.07	186.07	0.04	186.11
Koradi Units 8-10	456.47	439.78	0.10	439.88
Chandrapur Units 8-9	198.90	184.60	0.04	184.65
Parli Unit 8	61.24	58.94	0.01	58.96
SHP	3.00	2.76	0.00	2.76
Bhira		0.11	0.00	0.11
Koyna		5.37	0.00	5.37
Tillari		0.56	0.00	0.56
Total	1,776.56	1,707.64	0.40	1,708.04

10.4.8 Income Tax

10.4.8.1 The Petitioner submits that income tax for the regulated business shall be allowed on Return on Equity. The base rate of RoE shall be grossed up with effective tax rate and effective tax rate shall be considered based on the actual income tax paid. In view of this, there was no income tax paid during FY 2022-23 and FY 2023-24, hence, no income tax has been currently proposed for FY 2024-25.

Table 130: Proposed Income Tax for FY 2024-25

Particulars	2024-25	
	Approved in MYT	Revised Estimate
Income Tax	-	

10.4.9 Lease Rental for Hydro Stations

10.4.9.1 As elaborated in the true-up for 2023-24, the lease rentals including GST and the approved rentals for FY 2024-25 are provided in the table below:

Table 131: Lease rental claimed for FY 2024-25 (Rs. Crore)

#	Approved in MTR	Revised estimate
Koyna	295.31	295.32
SHP	228.21	228.21
Total	523.52	523.53

10.4.10 Non-Tariff Income (NTI)

10.4.10.1 The Petitioner has considered half yearly actual NTI and has projected the income for the balance six month of FY 2024-25. The station-wise details of Non-Tariff Income estimated for FY 2024-25 are provided in the table below:

Table 132: Non-Tariff Income for FY 2024-25 (Rs Crore)

Station/Unit	FY 2024-25	
	NTI Approved in MYT	NTI (Revised estimate)
Bhusawal Unit 3	1.78	0.83
Chandrapur Units 3 -7	6.38	6.90
Khaperkheda Units 1-4	13.27	4.36
Koradi Unit 6	63.01	1.38
Nashik Units 3-5	4.74	2.42
Uran	1.14	0.87
Paras Units 3-4	4.10	4.28
Parli Units 6-7	3.91	5.68
Khaperkheda Unit 5	8.14	2.58
Bhusawal Units 4-5	7.78	3.94
Koradi Units 8-10	10.92	12.70
Chandrapur Units 8-9	2.36	3.38
Parli Unit 8	2.14	2.84
SHP	-	0.35
Bhira	-	2.84
Koyna	-	3.18
Tillari	-	0.02
Total	129.68	58.55

10.5 Other Issues

10.5.1 Claim for Compensation for loss of revenue against outage at Bhira HPS for R & M works undertaken by M/s Tata Power Company Ltd. - Generation (TPC-G):

10.5.1.1 As elaborated in the sections of True-up of FY 2023-24, the Petitioner respectfully submits that the actual outage period for the Bhira TR commenced from 14th November 2023 and continued until June 2024. As there was no generation possible during this period, the Petitioner could not raise any energy bills to MSEDCL. However, compensation has been claimed from TPC-G for this period, based on the approved Fixed Charges for Bhira for FY 2024-25 (April 2024 to June 2024), and these have been accounted for under Revenue from Sale of Power for FY 2024-25.

The Petitioner submits that it has claimed compensation as per approved fixed charges for FY 2024-25 approved in MTR Order. Based on the provisional true up of FY 2024-25, fixed charges of Bhira shall be changed. In view of this, the Petitioner respectfully requests the Hon'ble Commission to allow the Petitioner to raise a differential bill toward compensation charges based on the provisional true-up for FY 2024-25, and as per the fixed charges approved under the MTR Order.

10.5.2 Legacy charges claimed by MSLDC for the period Oct'23 to Sept'24:

10.5.2.1 Recently, SLDC has raised invoices on MSPGCL claiming Legacy Charges for the period from Oct-2023 to Sept-2024. As per the details shared by SLDC, these Legacy charges are on account of short fall amount to be paid by Maharashtra State to WRLDC as per provision under CERC DSM regulations for sharing the Inter-state DSM pool shortfall by the participating states.

10.5.2.2 As per communication from SLDC, it has carried out apportionment of the Legacy Charges for Oct-23 to Sept-24 on all state entities, participating in State Pool Account, on the basis of methodology as given below:

- a. The charges under the head '50% in proportion to Actual Drawl (Rs)' in WRLDC statement are apportioned on the basis of DSM payable to the DSM pool Account by respective state Entities for the week when the state DSM Pool Account is under deficit.
- b. The charges under the head '50% in proportion to GNA granted (Rs)' are apportioned to the Entities on the basis of respective GNA granted.

10.5.2.3 The total Legacy Charges apportioned to MSPGCL for the period from October 2023 to September 2024 amount to Rs. 23.61 Crore. The Legacy Charges have been claimed by SLDC, as detailed in the invoice attached hereto as Annexure-25 (a). The amount of legacy charges is payable to SLDC in 20 equal instalments of Rs. 1.34 Crore each. The instalment schedule, along with the due dates for payment, is provided in Annexure-25 (a) Copies of the letters from SLDC are also enclosed for reference.

10.5.2.4 As per MERC DSM Regulations, the shortfall in funds in the State Deviation Pool Account, if any, at the end of the weekly settlement period shall be recovered by levy of additional charge from the State Entities in proportion to Net Deviation Charges Payable by concerned State Entity for the applicable weekly settlement period through supplementary bills.

10.5.2.5 Under the MERC DSM Regulations, 2019 the following is mentioned regarding timelines for issue of weekly billing and payment of charges for deviation.

“15. Accounting of Charges for Deviation. —

(D) An amount of surplus funds in the State Deviation Pool Account at the end of the financial year shall be utilised for the purpose of improvements in power system operations, for undertaking such measures and studies for improvement in reliability, security and safety of grid operations, undertaking capacity building and training programs related to system operations and market operations and for such other purposes as may be specified by Commission or for other schemes as may be devised in consultation with National Load Despatch Centre, or Regional Load Despatch Centre, with prior approval of the Commission.

Provided that, the short fall in funds in the State Deviation Pool Account; if any, at the end of the weekly settlement period shall be recovered by levy of additional charge from the State Entities in proportion to Net Deviation Charges Payable by concerned State Entity for the applicable weekly settlement period through supplementary bills.”

10.5.2.6 The aforementioned provision does not explicitly address payments from the State Pool Account to the Regional Pool in cases of shortfalls in the Regional Pool. However, it appears that since payments to the Regional DSM Pool are routed through the State Pool Account, SLDC has included the payment of Legacy Charges arising from Regional DSM Pool shortfalls through the State DSM Pool. Hence, SLDC has apportioned these Legacy Charges across all State Entities participating in the State DSM Pool.

10.5.2.7 Given the significant amount claimed and as there is no clarity in the Regulations regarding the detailed methodology for apportionment as well as non-availability of direct link to acts of entity. It is also being requested that, rather than apportioning the charges solely based on weekly DSM payables, consideration should be given to whether an entity has contributed to the State DSM deviation. Legacy Charges should only be levied on entities that have contributed to adverse deviations resulting in payables to the Inter-State DSM Pool. Further, weekly breakup of the legacy charges has not been made available by MSLDC for establishing any co-relation

10.5.2.8 However, as MSPGCL, as a participant in the State Pool, is liable to contribute to shortfalls in the State Pool Account, the Legacy Charges claimed by SLDC are being provisionally considered by MSPGCL. Also, during video conference held on 04.12.2024 between MSLDC and State entities, it was emphasis by MSLDC

that timely payment is essential to avoid any consequences and levy of LPS in the said matter. It is emphasized that these Legacy Charges are not regular DSM or Additional DSM charges payable under Provisions 9 and 10 of the MERC DSM Regulations, 2019. Instead, they represent additional contributions to support the State DSM Pool. Accordingly, MSPGCL is claiming the Legacy Charges of Rs.23.6 crore, on an overall basis, for the period October 2023 to September 2024 as an expense under the Annual Revenue Requirement (ARR) for FY 2024-25 and respectfully requests the Hon'ble Commission to approve the same as part of the provisional True-up for FY 2024-25.

10.6 Summary of ARR and Provisional True-up for 2024-25

10.6.1.1 The summary of ARR and provisional true-up for FY 2024-25 is provided in the table below:

Table 133: Summary of ARR for FY 2024-25 (Rs. Crore)

Particulars	Revised Normative	Actual	Net entitlement
Expenses side summary			
Return on Equity	1,708.04		1,708.04
Interest on Loan	1,156.50		1,156.50
Depreciation	2,223.34		2,223.34
O&M expenses	3,482.12		3,482.12
O&M expenses - FGD	1.85		1.85
Pay revision		302.24	302.24
Wage Revision		78.06	78.06
Water Charges		454.03	454.03
Other Charges		213.51	213.51
Other charges - Hydro colony related		2.68	2.68
IT Expenses		19.69	19.69
Interest on Working Capital	1,850.28		1,850.28
Less: Non-Tariff Income		58.55	58.55
Annual Fixed Charges			11,433.78
Income Tax			
Hydro Lease Rent	523.53		523.53
Fuel Cost	22,529.65		22,529.65
Fuel Cost - FGD & SCR	113.94		113.94
SLDC - Legacy charges			23.61
Power Purchase Expenses		14.35	14.35
Aggregate Revenue Requirement			34,638.86
AFC Reduction\$			636.76
Net Revenue Requirement			34,002.11
Revenue from sale of power		33,261.94	33,261.94
Revenue loss due to higher auxiliary consumption			
Advance received towards power purchase		10.00	10.00
Revenue for true-up			33,271.94
Revenue Gap/(Surplus)			730.17

10.6.1.2 The Petitioner submits that revenue estimated in above table is consist of actual revenue billed for H1 (Apr-Sep) and estimated revenue for H2 (Oct-Mar). Revenue for H2 has estimated consist of fixed charges which has been worked

out considering normative availability for H2 on AFC approved in MTR Order and revenue from energy charges worked out as per variable charge rate approved for FY 2024-25 as per MTR Order. Accordingly, the Petitioner request the Hon'ble Commission to approve revenue gap of Rs.730.17 Crore for FY 2024-25.

11 Key Challenges in the MYT Period

11.1.1 Life Extension of Old Units:

11.1.1.1 The Petitioner operates 13 units of 210/500 MW capacity of coal-fired power generation units that have surpassed their useful operational lifespan. These aging units continue to remain functional primarily due to directives issued by CEA, which through the letter dated 20.01.2023 mandates that all coal-based thermal power plants, including the older units of MSPGCL, must remain operational until 2030. This directive aims to ensure grid stability and reliable power supply as the country experiences huge energy demand, while also supporting renewable integration.

11.1.1.2 Despite significant efforts by MSPGCL to maintain the efficiency of these aging plants and ensuring compliance with revised environmental regulations, numerous challenges remain. These include high operational costs, reduced efficiency, technology obsolescence, limited support from OEM, requirement of structural strengthening, age related failures and the difficulties in meeting evolving environmental standards. While the renovation efforts are critical, they are financially burdensome and do not completely address the limitations of operating plants that have exceeded their designed operational life.

11.1.1.3 A key concern during the control period is the absence of clear guidelines regarding the eventual retirement of these aging units. Although the CEA directive extends their operational life until 2030, there is considerable uncertainty about their viability beyond that time period. This lack of concrete retirement timelines complicates planning for capacity replacement and financial structuring. MSPGCL is required to balance the costs of maintaining these units against the need to invest in newer, cleaner technologies to meet future energy demands and environmental standards.

11.1.2 Performance norms for Old generating units after availing Special Allowance:

11.1.2.1 Regulation 44 of the MERC MYT Regulations, 2024, allows the coal based/ lignite fired thermal units and hydro generating stations which have completed the useful life to avail 'special allowance', as compensation for meeting the requirement of expenses towards additional capital expenditure as per MERC (Approval of Capital Investment Schemes) Regulations, 2022. The relevant excerpt of the regulation is provided below.

"44 Special Allowance for Coal-based/Lignite fired Thermal and Hydro Generating Station

44.1 In the case of coal-based/lignite fired thermal, Gas based power plants, and Hydro generating stations who have completed the useful life as specified in these Regulations may opt to avail of a 'special allowance' in accordance with the norms specified in this Regulation, as compensation for meeting the requirement of expenses towards additional capital expenditure as per MERC (Approval of Capital Investment Schemes) Regulations, 2022, including capital

expenditure arising out of change in law, award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law, and force majeure.

44.2 In case, if the generation plant opts for Special allowance, such Special Allowance shall be included in the annual fixed cost, however, any upward revision of the capital cost or relaxation in the applicable operational norms if any allowed by the Commission shall not be allowed.”

- 11.1.2.2 As per the applicable Regulations, once a generating station opts for the special allowance, any relaxation in operational norms previously granted by the Hon’ble Commission shall no longer be permitted. This presents a challenge for the older units of MSPGCL, as these plants are unable to match the performance levels of newer units without undergoing cost intensive complete R&M.
- 11.1.2.3 This special allowance of maximum Rs. 10.75 lakhs per MW per year for control period, has following major riders:
- a) Any upward revision of the capital cost or relaxation in the applicable operational norms if any allowed by the Hon’ble Commission shall not be allowed
 - b) The details of all work to be undertaken through special allowance be submitted along with MYT Petition for the approval of Hon’ble Commission which shall be granted after prudence check of reasonableness of the cost estimate, cost benefit analysis and such other factors as may be considered relevant by the Hon’ble Commission.
 - c) Special allowance shall be purely OPEX and all CAPEX treatment like depreciation, RoE, interest on loans will not be allowed.
 - d) Separate record for special allowance as well as true-up at the end of control period
 - e) Cost shall include capital expenditure for change in law, award for arbitration or for compliance of the directions of order of any statutory authority or order or decree of any court of law and force majeure.
- 11.1.2.4 In this case, it is to mention that when special allowance itself displaces or stops all capital expenditure and exposes the Petitioner to additional risk such as change in law, force majeure, court awards and statutory directions. Its usefulness for old units (on the extended life) has been limited or negated. Further, opting for special allowance will result in immediate removal of operational norm relaxations for older units, which is detrimental and disincentivizes the utility from opting for the special allowance.
- 11.1.2.5 It may be noted that EE R&M costs for old units is typically in the range of 2 Cr./MW to Rs. 2.5 Cr./MW for restoration of operational parameters. Whereas, the special O&M is Rs. 10.75 lakh/MW, which is ~5.3% of the lower band of capital expenditure required. Achieving performance improvements with only 5.3% of the total cost is practically very difficult.

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- 11.1.2.6 Indigenous units (BHEL) installed during 1980s suffered from generic limitations prevailing as per restricted technology availability during the period and required complete (BTG & BoP) renovation and modernization to bring the performance at the acceptable level. Due to power demand situations (leading to restrictions on long planned shutdown) and constrained financial resources all capital-intensive renovation and modernisation work has been deferred / postponed over the period accumulating the problems resulting overall performance deterioration of the units / sets. CEA initiated & international financial institute (like World bank) financed EER&M-LE (Energy Efficient Renovation and Modernisation – Life extension) scheme has also achieved a limited success in Indian power sector perspective. Work on Russian units (LMZ units) has remained challenging due to lack of design support, dismantling of manufacturing facilities by OEMs (BHEL & LMZ), non-availability of spares etc. Too much consumer centric view has limited O&M budget of vintage units, which does not allow Run-Repair-Replace strategy coupled with limited R&M for vintage units.
- 11.1.2.7 Further, the current performance norms for old generating stations stipulated under the MERC MYT Regulations, 2024 are difficult to achieve for MSPGCL. These regulations impose strict standards on critical performance parameters such as Auxiliary Power Consumption, SHR, and Availability Factor, aimed at ensuring maximum operational efficiency. However, applying these norms to MSPGCL's aging coal-fired units proves to be challenging. Despite undertaking extensive R&M efforts, these older plants are constrained by inherent limitations that affect their ability to comply with the updated performance benchmarks.
- 11.1.2.8 Now CEA mandated to run all 210MW LMZ units till year 2030. In absence of clarity regarding the timeline for further utilisation of these units and also considering the difficulties regarding utilisation of special allowance provision for carrying out necessary major repairs/replacement/capital expenditure, the decision making in this regard gets delayed. Such delays result in inadequate O&M/R&M for these units ultimately impacting the performance parameters.
- 11.1.2.9 For instance, the prescribed SHR norms may be difficult to achieve, as older units typically consume more coal for the same energy output compared to modern plants. Similarly, sustaining the required PAF becomes challenging for units that experience frequent breakdowns and demand recurrent maintenance. Furthermore, these plants require higher auxiliary power consumption, which negatively impacts their overall efficiency and escalates operational costs.
- 11.1.2.10 Considering above constraints, Petitioner finds it difficult to opt for special O&M, as removal of any relaxation in performance norms (operational norms) cannot be achieved with special O&M. It is requested that if the Hon'ble Commission may kindly consider to allow condition for continuing relaxation of operational norms as well as O&M cost norms, Petitioner may be granted opportunity to submit the option for special O&M so that Petitioner can submit the option selection accordingly.
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11.1.2.11 Petitioner once again submits that the vintage units has typical challenges due to technology obsolescence, age related failure, challenges with flexible operation, requirement of structural strengthening, high design fuel calorific value, high operational cost, reduced efficiency etc., and special O&M shall be most techno-economical option for life extension if Petitioner's request for continuing relaxation in operational parameters norms as well as O&M expenses norms (as stipulated regulation 48.1 (i) MERC MYT Regulations 2024) is considered with.

11.1.3 Treatment of Expense towards Flexible Operation:

11.1.3.1 **Flexibility:** The term and concept of power system flexibility has evolved over time to reflect the way technology and power markets have evolved. The term was first introduced in IEA (2008) as: "...The ability to operate reliably with significant shares of variable renewable electricity."

A more specific definition was put forward in IEA (2011): "the extent to which a power system can modify electricity production or consumption in response to variability, expected or otherwise. In other words, it expresses the capability of a power system to maintain reliable supply in the face of rapid and large imbalances, whatever the cause."

EPRI, the Electric Power Research Institute, defined flexibility in 2016 as: "the ability to adapt to dynamic and changing conditions, for example, balancing supply and demand by the hour or minute, or deploying new generation and transmission resources over a period of years."

11.1.3.2 **Flexibilisation Cost:** The recurring costs incurred by the unit for running the unit on flexible operation modes (Variable cost) and the costs/investments incurred by the unit for enhancing the flexibilisation capability of the unit (CAPEX) together are the flexibilisation costs. The increase variable costs are incurred by the units on flexible operation due to the deterioration of efficiency, equipment life consumption, increased O&M expenses, extra oil consumption and decreased reliability (increase in outages & tube leakages (BTL)). Start-up and shutdown operations are the most expensive mode of operation because of additional life consumption of components, extra primary and secondary fuel consumption, chemical consumption and DSM charges, besides other costs such as manpower training & preparedness for operations as well as plant maintenance.

The coal-based conventional power plants in India are being subjected to increased flexible operation- frequent load following, lowering the minimum loads and frequent start-stops. Many of the Indian power utilities are facing with increased O&M costs, increased EFOR (Equivalent Forced outage Rates), and other operational costs. There are ample incidents of repeat failures in the flexibilising units. It is important to understand that flexible operation introduces new type of damages not seen in base loading units and these damages get accumulated continuously and may not be visible or be difficult to estimate until damages have happened together with loss of reliability, availability and in the extreme case loss of property and life. By the time

symptoms of the accumulated damage are visible it may have become very costly to correct. Even the most conservative approach will increase plant O&M costs along with per MW variable costs. However, those plants that can operate flexibly to meet market conditions while minimizing the financial impact of operating in this environment, will continue to be dispatched, at least for the near future. Operations for Flexible Operations requires a holistic perspective of the entire plant to avoid unintended consequences. The costs due to flexibilisation can be minimized to certain extent with correct operational practices, manpower training, modern tools & techniques and increased awareness of the cost implications of damages. The key factors influence the cost of Flexibilisation are Coal quality, Water chemistry management, Vintage - remaining creep & fatigue life of components, Design of the unit (material used, thickness, design of components), Maintenance philosophy, Operational practices and operational capability of operator, Level of automation/C&I systems, Lay-up practices, Extend of cyclic operation -depth, breadth & frequency of flexible support provided. The flexibilisation costs depend on the market context.

Factors	Parameters
Energy Charges	Start-up cost increases due to increase in - Heat Rate - APC - Oil support
O&M Cost	- Increased EFOR (Equivalent Forced outage Rates) - Accelerated life consumption due to Start-ups & Load Following
Fixed cost	Accelerated life consumption will have impact over unit availability in long-term • EFOR (Equivalent Forced Outage rate) can impact unit availability in short-term • Increased Fixed Costs per unit with lower online hours
Other Costs	Increased consumption of Water, Chemicals-online & offline dosing, DSM Charges, impact on environment compliance equipment's

11.1.3.3 The Petitioner respectfully submits that the CEA has issued CEA (Flexible Operation of Coal based Thermal Power Generating Units) Regulations, 2023 mandating coal-fired power plants to adopt flexible operations in response to fluctuating demand and the growing integration of renewable energy sources. While this regulatory move is crucial for ensuring grid stability, it introduces significant operational complexities for MSPGCL. Implementing flexible

operations will necessitate substantial investments in new technology, equipment upgrades, and the training of personnel to enable the rapid ramping up and down of plant operations. The key challenge lies in the regulatory and financial treatment of the costs associated with these flexible operations. The key interventions identified for flexibilisation of operations are Changes in operational practices for existing plants (requires Training & hands on experience, live learning, practice on simulator etc) , Optimisation of Control and equipment, adopting the practice for operation of HP/LP bypass periodically which leads to loss of efficiency, Flexibility retrofit investments (CAPEX), Efficiency retrofit investment (CAPEX).

11.1.4 Request for provision to submit revised ARR requirement to Beneficiary Distribution Licensees:

11.1.4.1 Under the Regulation 5 (Petitions to be filed in the Control Period) of the MERC (MYT) Regulations, 2024, only Distribution licensees are allowed to file Mid Term Review petition covering Truing-up for FY 2024-25, FY 2025-26 and FY 2026-27; Provisional Truing-up for FY 2027-28 and Revised forecast of Aggregate Revenue Requirement, expected revenue from existing Tariff and charges, expected revenue gap, and proposed category-wise Tariff for the fourth and fifth year of the Control Period.

11.1.4.2 For Generating Companies, a single Truing-up Petition is to be filed at the end of the Control Period. However, considering the potential for significant cost implications, both related to O&M expenses and financing costs, arising from major capital expenditures on schemes such as flexibilization or emission control systems, if additional expenditures are required, it is essential to establish a mechanism through which the Generating Companies can submit cost implications of such schemes so as to ensure timely recovery of such costs.

11.1.5 Petitioner's Submission

11.1.5.1 In light of the aforementioned submission with respect to flexible operation, the Petitioner submits that this operational ambiguity has introduced significant challenges, and more definitive guidance from Hon'ble Commission is needed to facilitate a clear and structured approach to the eventual decommissioning of these units, ensuring minimal disruption to the energy supply.

11.1.5.2 The Petitioner further submits that the inability of these units to meet new performance standards increases operational expenditure, while also undermining MSPGCL's capacity to recover costs, placing significant financial strain on the organization during the Control Period.

11.1.5.3 The Petitioner most respectfully submits that the MERC MYT Regulations 2024 do not provide clear guidance on how these expenses will be accounted for, creating uncertainty about MSPGCL's ability to recover the costs incurred in complying with the CEA Regulations regarding flexible operation norms. This

ambiguity creates a challenging situation for MSPGCL, as it is required to adhere to the new standards without clarity on financial recovery.

- 11.1.5.4 Further, the Petitioner respectfully requests that, if Generating Companies are not permitted to file a Mid-Term Review Petition, the Hon'ble Commission may direct Distribution Licensees to obtain data on significant cost implications from their contracted Generating Companies when filing their Mid-Term Review Petitions. Alternatively, Generating Companies may be included as Respondent parties in the Mid-Term Review Petitions filed by Distribution Licensees, enabling them to submit any additional claims, if applicable.

12 Fuel Utilisation for the Control Period FY 2025-26 to FY 2029-30

12.1 Background

12.1.1.1 The Petitioner respectfully submits that, in accordance with the MERC MYT Regulations 2024, the Generating Company is required to prepare and submit its Fuel Utilisation Plan for the Control Period commencing on April 1, 2025, along with the Petition for determination of Tariff for the Control Period from April 1, 2025 to March 31, 2030, in accordance with Part A of these Regulations, to the Hon'ble Commission for approval.

12.1.1.2 Furthermore, as per the Regulation 40, the Fuel Utilisation Plan should ensure that fuel quantum is allocated to different generating stations or units in accordance with the merit order of different generation stations or units in terms of variable cost. The relevant excerpt of the regulations is provided below for ease of reference:

"40.1 The Generating Company shall prepare and submit Fuel Utilisation Plan for the Control Period commencing on April 1, 2025, along with the Petition for determination of Tariff for the Control Period from April 1, 2025 to March 31, 2030, in accordance with Part A of these Regulations, to the Commission for approval.

40.2 The Fuel Utilisation Plan should ensure that fuel quantum is allocated to different generating Stations/Units in accordance with the merit order of different generation Stations/Units in terms of variable cost:

Provided that the fuel allocation should be such that, subject to system and other constraints, the least cost generating Stations/Units are operated at maximum availability and other generating Stations/Units are operated at maximum availability thereafter in the ascending order of variable cost.

40.3 The Fuel Utilisation Plan shall comprise the following:

- (a) Forecast of fuel requirement for each unit/station;*
- (b) Details of contracted source, annual contracted quantity, estimated availability from contracted sources and resultant shortage of fuel, if any, for each unit/station;*
- (c) Use of optimum mix of fuel;*
- (d) Alternate arrangement for meeting shortage of fuel along with impact on variable cost of unit/station;*
- (e) Plan for swapping of fuel source for optimising the cost, if any, along with detailed justification and cost savings;*
- (f) Net cost savings in variable cost of each unit, if any, after optimum utilisation of Fuel:*

Provided that the forecast or estimates for the Control Period from FY 2025-26 to FY 2029-30 shall be prepared for each month over the Control Period:

Provided further that Fuel Utilisation Plan shall be prepared based on past data and reasonable assumptions for future.”

12.1.1.3 Further, as per MERC MYT Regulations 2019, the Generating Company shall analyse the Actual Fuel Utilization vs. approved Fuel Utilization Plan. The relevant excerpt is reproduced below for ready reference:

“40.9 At time of truing up of respective year, the Commission shall scrutinise the implementation of actual Fuel Utilisation Plan vis-à-vis approved plan, deviations, if any, and justification submitted by a Generating Company thereon and; may disallow the variable cost of generation on account of operational inefficiencies in utilisation of fuel.”

12.1.1.4 In this regard, the Petitioner is making its submissions under two parts:

- Actual Utilisation of coal in FY 2022-23, FY 2023-24 and FY 2024-25(H1)
- Proposed Utilisation of coal for the period FY 2024-25 (H2) to FY 2029-30 (Formats for Station wise details are attached as Annexure – 26).

12.2 Actual Utilisation of coal in FY 2022-23 and FY 2023-24

12.2.1 Annual fuel requirement

12.2.1.1 The overall coal requirement of MSPGCL stations based on the normative SHR and normative availability factors is around 55.40 MMT (considering a GCV (As fired) of ~3300 kCal/kg). The station wise requirement is provided below for reference:

Table 134: Overall Coal Requirement for MSPGCL

Station	Capacity	Normative AVF	Gross Gen	Normative SHR	Heat Content Required	Coal Required@ GCV-3300 kCal/kg
	MW	%	MU	kCal/kWh	MkCal	MMT
Bhusawal 3	210	80%	1,472	2,787	41,01,572	1.24
Bhusawal 4,5	1000	85%	7,446	2,375	1,76,84,250	5.35
Chandrapur 3-7	1920	80%	13,455	2,688	3,61,68,008	10.92
Chandrapur 8,9	1000	85%	7,446	2,375	1,76,84,250	5.35
KPKD 1-4	840	75%	5,519	2,630	1,45,14,444	4.38
KPKD 5	500	85%	3,723	2,375	88,42,125	2.67
Koradi 6	210	75%	1,380	2,456	33,88,198	1.02
Koradi #8,9,10	1980	85%	14,743	2,230	3,28,77,068	9.94
Nashik 3-5	630	80%	4,415	2,754	1,21,59,020	3.67
Parli 6,7	500	85%	3,723	2,415	89,91,045	2.72
Parli 8	250	85%	1,862	2,415	44,95,523	1.36
Paras 3,4	500	85%	3,723	2,415	89,91,045	2.72
Bhusawal 6	660	85%	4,914	2,139	1,05,12,065	3.18

12.2.1.2 The broad utilisation of coal amongst the power stations based on the submissions made in the MTR petition is provided below:

12.2.2 Fuel Availability from various sources in FY 2022-23 and FY 2023-24

12.2.2.1 MSPGCL had submitted that it has coal supply arrangements from WCL, SECL, SCCL and MCL. The overall tie-up under Fuel Supply Agreement is provided in the table below:

Table 135: Tie-up of Coal under FSA (MMT) in FY 2022-23

TPS	WCL	MCL	SECL	SCCL	FSA Qty
Chandrapur (U-3 to 7)	12.326	-	-	-	12.326
Koradi (U-6)	0.170	0.373	0.627	-	1.169
Khaperkheda (U-1 to 5)	1.432	3.879	2.001	-	7.312
Nasik (U-3 to 5)	2.354	-	0.724	-	3.078
Bhusawal (U-3 to 5)	3.213	-	2.312	-	5.525
Parli (U-6 to 7)	1.708	-	-	-	1.708
Paras (U-3 to 4)	2.503	-	-	-	2.503
Total	23.705	4.252	5.664	-	33.620

12.2.2.2 Further, the bridge linkages available in FY 2022-23 are provided below:

Table 136: Tie up of Coal under Bridge Linkages in FY 2022-23 (MMT)

Power station	WCL (G8-G10)	SCCL (G8-G10)	Total Qty
Koradi (U-8,9 &10)	5.306	1.300	6.606
Chandrapur (U-8 &9)	3.535	-	3.535
Parli (U-8)	-	0.865	0.865
Total	8.841	2.165	11.006

12.2.2.3 Total Fuel tie up for the period FY2022-23 along with the additional MoU's is provided below:

Table 137: Total Coal Tie up in FY 2022-23 (MMT)

TPS	WCL	MCL	SECL	SCCL	FSA Qty
Chandrapur#	15.861	-	-	-	15.861
Koradi	5.475	0.373	0.627	1.300	7.774
Khaperkheda	1.432	3.879	2.001	-	7.312
Nasik	2.354	-	0.724	-	3.078
Bhusawal	3.213	-	2.312	-	5.525
Parli	1.708	-	-	0.865	2.573
Paras	2.503	-	-	-	2.503
Additional MoU	*1.100	-	-	3.835	4.935
Total	34.956	4.252	5.664	6.000	49.561

MSPGCL has signed an agreement with WCL to supply additional 1.87 MMTPA from NM UG to OC Exp. mine over and above FSA ACQ linkage.

*MSPGCL has signed MoU on 17.11.2022 for additional 1.100 MMTPA from Cost Plus Mines for FY. 2022-23.

12.2.2.4 Similarly, the overall fuel linkages available with MSPGCL in FY 2023-24 is summarized in the table below:

Table 138: Tie-up of Coal under FSA (MMT) in FY 2023-24

TPS	WCL	MCL	SECL	SCCL	FSA Qty
Chandrapur (U-3 to 7)	12.326	-	-	-	12.326
Koradi (U-6)	0.160	0.373	0.627	-	1.169
Khaperkheda (U-1 to 5)	1.432	3.879	2.001	-	7.312
Nasik (U-3 to 5)	2.354	-	0.724	-	3.078
Bhusawal (U-3 to 5)	3.213	-	2.312	-	5.525
Parli (U-6 to 7)	1.708	-	-	-	1.708
Paras (U-3 to 4)	2.503	-	-	-	2.503
Total	23.705	4.252	5.664	-	33.620

12.2.2.5 Further, the bridge linkages available in FY 2023-24 is provided below:

Table 139: Tie up of Coal under Bridge Linkages in FY 2023-24 (MMT)

TPS	WCL (G8-G10)	SCCL (G8-G13)	Total Qty
Koradi (U-8,9 &10)	5.306	1.300	6.606
Chandrapur (U-8 &9)	3.535	-	3.535
Parli (U-8)	-	0.865	0.865
Total	8.841	2.165	11.006

12.2.2.6 Total Fuel tie up for the period FY2023-24 along with the additional MoU's is provided below:

Table 140: Tie-up of Coal in FY 2023-24

TPS	WCL	MCL	SECL	SCCL	FSA Qty
Chandrapur	15.861	-	-	-	15.861
Koradi	5.475	0.373	0.627	1.300	7.774
Khaperkheda	1.432	3.879	2.001	-	7.312
Nasik	2.354	-	0.724	-	3.078
Bhusawal	3.213	-	2.312	-	5.525
Parli	1.708	-	-	0.865	2.573
Paras	2.503	-	-	-	2.503
Additional MoU	*4.000	-	-	3.835	7.835
Total	36.545	4.252	5.664	6.000	52.461

*MSPGCL has signed MoU for additional 4.00 MMTPA from Cost Plus Mines for FY. 2023-24.

12.2.2.7 Out of the total FSA/linkage quantum available with MSPGCL, ~70% of the supply is through WCL. The coal supply agreement with WCL (2009) provides for supply of D/E Grade of coal and the subsequent FSA signed in 2017 provided for supply of G8-G10 grades. FSA with MCL (2009) provides supply of F Grade coal and subsequent FSA provides for supply of G10-G13 grade. Similarly, FSA with SECL provides for supply of G10-G12 grades and SCCL is expected to supply G8 to G13 grade coal.

12.2.2.8 The overall materialization of coal in FY2022-23 and FY2023-24 is summarized below:

Table 141: Coal materialization in FY 2022-23 and FY 2023-24

Coal company	FY 2022-23 (MMT)			FY 2023-24 (MMT)		
	ACQ	Receipt	% Mat	ACQ	Receipt	% Mat
WCL	34.96	28.29	81%	36.55	29.85	82%
MCL	4.62	4.69	101%	4.25	5.17	122%
SECL	6.29	6.62	105%	5.66	6.44	114%
SCCL	6.00	4.01	67%	6.00	3.45	58%
TOTAL	51.87	43.60	84%	52.46	44.91	86%

12.2.2.9 It is submitted that the actual coal procurement from MCL and SECL exceeded the ACQ primarily because these companies had a higher coal availability than the ACQ. Further, coal materialization from WCL was below 100%, hence, MSPGCL compensated for this shortfall by procuring excess available coal from MCL and SECL.

12.2.2.10 During the years FY 2022-23 and FY 2023-24, MSPGCL had undertaken the following initiatives for improvement of coal supply to its stations:

a. Usage of Washed coal

MSPGCL had envisaged beneficiation of coal for ~21 MMT of coal from WCL, MCL and SECL. Almost the entire quantum of coal from MCL and SECL was proposed for beneficiation so that the effective materialization of coal improves significantly from such companies.

MSPGCL has appointed and placed LoA on M/s Maharashtra State Mining Corporation (MSMC), as Nodal Agency for supply of wash coal.

The improvement of GCV in case of washed coal is based on the input parameters of raw coal (with respect to ash and moisture). The corresponding value in washed coal are monitored at the unloading points in the stations and accordingly, the variations, if any, are settled with the contractors as per provisions of the agreement.

Coal company wise details of the beneficiated/ washed coal contracts for the period FY 2022-23, FY2023-24 is summarized and tabulated herein below:

Table 142: Coal Company & Raw Coal Quantities Contract FY 2022-23, FY2023-24 (MMTPA)

Quantity	WCL	SECL	MCL	TOTAL
Initial 80 %	8.000	5.600	3.980	17.580
Balance 20%	2.000	1.218	1.000	4.218
Total Quantity	10.000	6.818	4.980	21.798

Expected performance parameters as per the washery contracts for the said period is as follows:

Table 143: Expected Performance Parameters as per Contract

Particulars	WCL	SECL	MCL
Total Moisture (as received basis)	Raw coal 10 days weighted average +1% during fair season Raw coal 10 days weighted average +2% during rainy season		
Ash Content (ADB)	31%	31%	33%
% of Fines (below 2.5 mm) in wash coal	Below 25%	Below 25%	Below 25%
Size	0 to 50 mm	0 to 50 mm	0 to 50 mm
Normative yield	85% of ROM Coal	80% of ROM Coal	72% of ROM Coal
GCV	Improvement by 500 to 600 kCal of raw coal 10 days Wt average GCV		

12.2.2.11 The details of washed coal quantum consumed in various power stations during the period from FY2022-23 to FY2023-24 is provided in the table below:

Table 144: Wash coal consumption details FY 2022-23 & FY 2023-24 (MMT)

Station	FY2022-23	FY2023-24
Bhusawal 3	0.04	0.07
Chandrapur 3 -7	0.04	0.39
Khaperkheda 1-4	0.48	0.39
Koradi 6	0.63	0.46
Nashik 3-5	-	-
Paras 3-4	-	-
Parli 6-7	-	-
Khaperkheda 5	1.10	0.29
Bhusawal 4-5	0.84	0.36
Koradi 8-10	7.30	8.02
Chandrapur 8-9	0.41	0.20
Parli 8	-	-
Total	10.83	10.19

12.2.2.12 The utilisation of washed coal has improved the realization of coal in the power station. The GCV of washed coal on the "As received" basis is comparatively better than that of raw coal received at the station. The comparative table of GCV (EQ Vs ARB) of raw and washed coal received in FY 2022-23 & FY 2023-24 at various stations is shown below:

Table 145: Actual variation in GCV 'As Billed' and GCV 'As Received' during FY 2022-23 and FY 2023-24

Raw Vs Washed Coal GCV Variation (FY2022-23)

Parameter	Bhusawal 3	Chandrapur 3-7	Khaperkheda 1-4	Koradi 6	Nashik 3-5	Paras 3-4	Parli 6-7	Khaperkheda 5	Bhusawal 4-5	Koradi 8-10	Chandrapur 8-9	Parli 8
Raw EQ	4,109	4,001	3,907	3,787	4,051	4,136	3,947	3,921	4,171	3,854	4,044	3,947
Raw ARB	3,188	3,106	3,126	2,680	2,835	3,217	3,282	3,132	3,214	2,798	3,131	3,282
Variation	920	894	781	1,107	1,216	919	665	789	957	1,057	913	665
Raw EQ*	3,666	3,989	3,754	3,881	-	-	-	3,621	3,779	3,880	3,741	-
Washed ARB	4,089	4,181	3,899	3,778	-	-	-	3,950	4,106	3,827	4,110	-
Variation	-423	-192	-145	103	-	-	-	-329	-327	53	-369	-

Raw Vs Washed Coal GCV Variation (FY2023-24)

Parameter	Bhusawal 3	Chandrapur 3-7	Khaperkheda 1-4	Koradi 6	Nashik 3-5	Paras 3-4	Parli 6-7	Khaperkheda 5	Bhusawal 4-5	Koradi 8-10	Chandrapur 8-9	Parli 8
Raw EQ	3,904	4,047	3,907	3,948	3,937	4,160	3,930	3,921	3,950	4,014	4,045	3,930
Raw ARB	3,144	3,186	3,155	2,830	2,958	3,314	3,252	3,157	3,212	3,010	3,201	3,252
Variation	761	861	752	1,118	979	846	678	764	738	1,004	844	678
Raw EQ*	3,745	4,008	3,754	3,888	-	-	-	3,621	3,956	3,933	3,947	-
Washed ARB	4,052	3,662	3,762	3,433	-	-	-	3,763	4,062	3,486	3,412	-
Variation	-307	346	-8	454	-	-	-	-142	-106	447	535	-

*sent to washery

12.2.2.13 As may be observed, the variation in GCV EQ Vs ARB in case of raw coal has been in the range of 700-1100 kCal/kg, where in the case of washed coal, the overall GCV ARB is varying from lower to higher range than the GCV Eq basis (which does not include the impact of surface moisture). The envisaged yield of Washed Coal in WCL, MCL and SECL is around 85%, 72% and 80% respectively of the Raw Coal. The variation in the of GCV in case of washed coal is based on the input parameters of raw coal (with respect to ash and moisture). The corresponding value in washed coal are monitored at the unloading points in the stations and accordingly, the variations, if any, are settled with the contractors as per provisions of the agreement. In the last 2 years of washed coal usage, it is observed that even though the GCV of the washed coal is not improving considerably, there are some tangible & intangible benefits of use of washed coal which are listed below:

Tangible benefits of use of Washed Coal:

- 1) Increase in GCV of coal
- 2) Significant improvement in power generation.
- 3) Reduction in Auxiliary Power Consumption (%)
- 4) Lower Specific Oil Consumption (SOC)
- 5) Increase in Plant Load Factor (PLF)
- 6) Improvement in Specific coal consumption
- 7) Enhanced Load handling capacity

-
- 8) Saving in freight, as less coal is required to transport for same heat value, considering reject

Intangible benefits of use of Washed Coal:

- 1) Overall increase in realization of coal as compared to realization of only raw coal (especially from WCL)
- 2) No instances of receipt of lumpy coal and stones.
- 3) Reduction in unloading time and demurrages.
- 4) Less wear & tear of equipment (Conveyer belts, crushing elements, Chutes, etc.)
- 5) Crushing system is bypassed, hence reduction in auxiliary consumption
- 6) Washing of coal reduces the ash content of coal, also improves its heating value and removes small amounts of other substances, such as Sulphur and hazardous air pollutants.
- 7) Reduction in ash disposal expenditure
- 8) Reduction in wear and tear of boiler and CHP parts
- 9) Load fluctuation decreased result in gain in DSM

b. Usage of Imported Coal

In order to mitigate potential shortfall in supply of domestic coal, MSPGCL had considered usage of 3.48 MMT of imported coal for FY 2022-23 & 1.87 MMT of imported coal for FY 2023-24 in some of the TPS. The quantum was envisaged to be used in the months of Apr to June and Oct to March.

Considering the coal shortage scenario, Ministry of Power, Government of India ('MOP') has issued advisory dated 07.12.2021 to all domestic coal-based power plants (State Gencos & IPPs) to import coal to meet the requirement by blending the imported coal to the extent of 4%.

Further, MoP issued revised advisory on 28.04.2022 for importing coal for blending purpose to meet the requirement at 10% of the total requirement by 31.10.2022 in lieu of the prevailing shortages in supply of Domestic Coal. In the said revised advisory, State-wise and generation company wise targets were fixed and it was urged to ensure delivery of coal for blending purposes before the onset of monsoon as domestic coal supply gets affected during the rainy season. Accordingly, MoP has computed the imported coal requirement of MSPGCL at 3.46 MMT. As per the revised advisory, the said imported coal has to be procured in a manner that 50% quantity is received by 30.06.2022, 40% by 31.08.2022 and 10% by 31.10.2022. It was also specified that procurement of imported coal must be done in a transparent manner to obtain competitive rate.

Further, vide notification dated 13.05.2022, MoP has stated that due to shortage of domestic coal supplies, the State Government and State Commissions are to ensure that all Generating Companies under them need to take immediate action for import of coal for blending as per order of MoP so that resource adequacy is ensured and 24x7 supply to consumers is provided.

Further, MoP vide its notification dated 18.05.2022 has issued direction U/s. 107 of Electricity Act 2003 (EA 2003) regarding blending of imported coal with domestic coal to mitigate the domestic coal shortage. As per the notifications, the Hon'ble CERC was directed to immediately allow higher amount of blending of upto 30% with imported coal in compliance with decision of MoP, subject to technical feasibility, without beneficiaries' consultation for the period upto 31st March 2023, to maintain resource adequacy and 24x7 supply to consumers.

In addition to the above, MoP issued an additional direction to all Gencos including IPPs for timely import of coal for blending purposes. The following directions were issued in the same:

- As per the said direction, it was decided that if the orders for import coal for blending is not placed by Gencos by 31.05.2022 and is not arrived at power plants by 15.06.2022, then the defaulter Gencos would have to import coal for purpose to the extent of 15% in the remaining period upto 31.10.2022.
- Also, the power plants which have not yet started blending of imported coal to ensure that they blend coal @15% upto Oct 2022 and thereafter @10% from November 2022 to March 2023.
- Also, from 01.06.2022, the domestic coal will be allocated proportionately to all Gencos based on likely availability.
- It is also cautioned in the said letter that if blending of imported coal is not started by 15.06.2022, then the domestic coal allocation of the concerned defaulter will be further reduced by 5%.
- Also, any additional domestic supply will be available post June 2022 will be allocated for stock building to those Gencos which prove commendable level of blending of coal in the month of June 2022. Based on the same, the revised allocation of coal in July 2022 onwards will be conveyed.
- As per the said notification, the total target for imported coal for FY 2022-23 for MSPGCL is 3.464 MT of which 0.289 MT needs to be procured in June 2022.

In continuation with earlier letters, MoP vide its letter dated 01.06.2022 further stated that Gencos which either do not place indents with CIL by 03.06.2022 or have not initiated tender process for purchase of imported coal, they will be allocated only 70% of quantity domestic coal from 07.06.2022 and allocation will be further

reduced to 60% from 15.06.2022. Domestic coal thus saved shall be allocated to those Gencos who have already commenced blending.

MSPGCL would like to submit that based on the various directions of MoP for blending of imported coal and risk of lower allocation of domestic coal due to non-adherences of the MoP direction, MSPGCL was mandated to buy the costly imported coal for blending purpose on immediate basis, even though usage of imported coal is generally not undertaken during monsoon months.

It is submitted that, MSPGCL has procured imported coal from May 2022 to March 2023, even during the monsoon months (July to September). The details of the same is given in below table:

Table 146: Delivery Schedule and Receipt of Imported Coal Quantity from May-22 to Apr-23 (MT)

Month	Khaperkheda		Koradi		Chandrapur		Bhusawal		Nashik		Mahagenco Total	
	Schedule	Receipt	Schedule	Receipt	Schedule	Receipt	Schedule	Receipt	Schedule	Receipt	Schedule	Receipt
May-22	18,500	-	-	-	-	-	28,000	3,914	24,000	23,815	70,500	27,729
Jun-22	65,000	30,751	65,000	11,293	1,13,000	72,840	1,20,000	85,410	37,500	30,100	4,00,500	2,30,394
Jul-22	65,000	72,158	65,000	75,984	2,00,000	75,674	72,500	52,968	23,000	22,509	4,25,500	2,99,292
Aug-22	65,000	64,435	65,000	51,144	2,00,000	1,75,488	72,500	1,12,694	23,000	31,039	4,25,500	4,34,800
Sep-22	65,000	54,255	65,000	55,290	2,00,000	2,60,615	78,500	74,064	21,000	23,313	4,29,500	4,67,537
Oct-22	65,000	51,349	65,000	76,842	2,00,000	4,14,586	78,500	87,473	21,500	18,865	4,30,000	6,49,115
Nov-22	65,000	65,198	70,000	81,240	1,50,000	77,725	75,000	93,118	25,000	27,514	3,85,000	3,44,795
Dec-22	65,000	1,01,161	70,000	77,408	1,50,000	1,37,789	30,000	66,284	25,000	50,687	3,40,000	4,33,330
Jan-23	30,200	50,304	67,000	1,04,806	1,50,000	1,44,987	60,000	69,872	25,000	1,730	3,32,200	3,71,699
Feb-23	28,300	50,510	-	-	1,37,000	1,31,731	60,000	42,525	-	-	2,25,300	2,24,766
Mar-23	-	581	-	-	-	215	-	-	-	-	-	796
Apr-23	-	-	-	-	-	705	-	-	-	-	-	705
Total	5,32,000	5,40,702	5,32,000	5,34,007	15,00,000	14,92,355		6,88,322	2,25,000	2,29,572	34,64,000	34,84,959

Supplier	M/s Mohit Minerals	M/s Mohit Minerals	M/s Adani	M/s GCMPL	M/s GCMPL	
Contract Rate (Rs/MT)	11,286	11,286	11,967	11,866	11,424	
Date of placement of LOA / Amendment	18-04-2022	04-05-2022	09-05-2022	26-04-2022	26-04-2022	
Actual Commencement date	12-06-2022	23-06-2022	15-06-2022	27-05-2022	25-05-2022	

Further, MoP had issued an advisory dated 09.01.2023 and directed to all generating companies including IPPs to take necessary action and immediately plan to import coal through a transparent competitive procurement for blending at the rate of 6% by weight so as to have coal stocks at their power plants for smooth operations till September 2023. Additionally, MoP vide letters dtd. 01.09.2023, 25.10.2023 and 04.03.2024 time to time revised and directed to maintain 6% blending (By weight) till June-2024.

In view of 6% blending directives, MSPGCL processed the international tender with reverse auction and placed orders for procurement of 2.08 Million MTPA imported coal for Khaperkheda, Chandrapur, Bhusawal and Nashik TPSs for two years. The supply commenced in June 2023, but was halted during the rainy season from July to September. From 1st October 2023, imported coal supply is resumed.

MSPGCL issued orders for total schedule of 3.12 Million MTPA for period June-2023 to June-2024 against first year schedule of contract.

Table 147: Delivery Schedule and Receipt of Imported Coal Quantity from June-23 to July-24 (MT)

Coal company	FY 2022-23 (MMT)			FY 2023-24 (MMT)		
	ACQ	Receipt	% Mat	ACQ	Receipt	% Mat
WCL	34.96	28.29	81%	36.55	29.85	82%
MCL	4.62	4.69	101%	4.25	5.17	122%
SECL	6.29	6.62	105%	5.66	6.44	114%
SCCL	6	4.01	67%	6	3.45	58%
TOTAL	51.87	43.60	84%	52.46	44.91	86%

Month	Khaperkheda		Chandrapur		Bhusawal		Nashik		Mahagenco Total	
	Schedule	Receipt	Schedule	Receipt	Schedule	Receipt	Schedule	Receipt	Schedule	Receipt
Jun-23	49,872	49,872	95,043	95,043	25,950	19,654	11,688	11,688	1,82,553	1,76,257
Jul-23	4,024	4,024	51,172	51,172	12,781	19,077	-	-	67,977	74,273
Aug-23 to Sept-23	-	-	-	-	-	-	-	-	-	-
Oct-23	60,000	58,646	1,25,000	1,25,305	60,000	57,689	20,000	23,031	2,65,000	2,64,671
Nov-23	60,000	61,356	1,25,000	1,17,382	60,000	68,449	20,000	19,416	2,65,000	2,66,603
Dec-23	60,000	57,589	1,25,000	1,45,531	60,000	61,778	20,000	19,400	2,65,000	2,84,298
Jan-24	60,000	37,546	1,25,000	1,25,703	60,000	66,592	20,000	23,212	2,65,000	2,53,053
Feb-24	60,000	53,278	1,25,000	1,15,163	60,000	66,017	20,000	22,891	2,65,000	2,57,349
Mar-24	60,000	80,807	1,25,000	1,35,712	60,000	58,099	20,000	22,710	2,65,000	2,97,328
Apr-24	1,30,000	83,446	2,53,750	1,51,345	1,15,000	34,964	39,000	29,260	5,37,750	2,99,015
May-24	1,37,104	1,19,767	2,68,785	2,60,575	60,000	1,24,222	61,312	82,308	5,27,201	5,86,872
Jun-24	39,000	1,04,726	81,250	1,53,498	18,000	26,666	76,269	59,775	2,14,519	3,44,665
Jul-24	-	12,871	-	22,594	-	-	-	800	-	36,265
Total	7,20,000	7,23,928	15,00,000	14,99,023	5,91,731	6,03,207	3,08,269	3,14,491	31,20,000	31,40,649

Supplier	M/s Mohit Minerals	M/s Adani	M/s GCMPL	M/s GCMPL	
Contract Rate (Rs/MT)	13,048	12,890	12,822	12,420	
Date of placement of LOA / Amendment	16-05-2023	16-05-2023	16-05-2023	16-05-2023	
Actual Commencement date	17-06-2022	18-06-2023	28-06-2023	24-06-2023	

c. Acceptance to usage of Mine Specific Coal

In 2018, WCL offered MSPGCL mine-specific coal from 13 mines with an add-on charge of Rs. 450/tonne, which MSPGCL initially contested due to additional financial burdens. Despite MSPGCL's requests for detailed pricing and allocation, WCL implemented the mine-specific pricing from November 2019. MSPGCL repeatedly sought clarification on the policy and urged WCL to align coal prices with other subsidiaries like MCL and SECL, but received no favorable response. In August 2020, MSPGCL took a firm stance against paying the add-on charges and appealed to MoC, MoP and CEA for price corrections. However, due to depleting coal stocks, MSPGCL eventually agreed to WCL's mine-specific supply at Rs. 450/tonne from January 2021.

WCL subsequently expanded its Mine Specific Sources list to 19 mines, applying the add-on price to these sources as of November 2021.

Since the agreement of accepting the MSP, the commitment to augment coal supplies to TPSs of MSPGCL has improved marginally. MSPGCL is constantly striving to pursue the matter with WCL to ensure that the desired supplies are made to the stations.

At present WCL is not supplying the coal to the MSPGCL power stations at the notified rates. During the period from April 2024 to September 2024, not even a single rake was received from WCL at the notified price. WCL has shifted all the coal from notified to the Mine specific coal. The actual realization of coal for FY 2022-23 & FY 2023-24 is already being shown in above table (Table – 141).

12.2.2.14 It is submitted that due to following major reasons, the approved fuel utilization plan and actual fuel utilization plan was deviated.

a) Directives for blending of the Imported Coal

The MoP stipulates imported coal blending at the MSPGCL level. Koradi, Paras, and Parli TPSs do not use imported coal and a higher blending was considered at BTPS, NTPS, CSTPS, and KPKD to meet the overall blending targets. Imported coal prices are index-based and fluctuate, leading to significant variations between the prices considered in the Approved and the actual FUP. The price parameter for GCV ARB in contracts is fixed at 4600 kCal/kg, though actual GCV may vary.

b) Sourcing of coal through Rail Sea Rail (RSR)

MSGPCL is sourcing the coal through RSR mode primarily from the MCL region, to ensure fuel security and coal stock building at Bhusawal and Nashik TPS. This led to the change in the fuel utilization plan

c) Shifting of the Washed Coal to Koradi TPS

As proposed in MTR Petition, MSPGCL has initially planned to supply washed coal majorly to Bhusawal, Khaperkheda, Koradi and Chandrapur units; however, washed coal was primarily used at Koradi TPS 8,9,10 more efficient units. Based on coal stock levels, smaller quantities are supplied to Chandrapur, Khaperkheda and Bhusawal TPS, resulting in variations between the approved and actual FUP.

d) Implementation of Flexible Utilization of Coal

MSPGCL submits that the Central Electricity Authority (CEA) issued a "Methodology for Flexibility in Utilization of Domestic Coal to Reduce the Cost of

Power Generation" on June 8, 2016 (**Annexure - 27**). This methodology allows state generating companies to optimize coal utilization across their own power stations, based on several key factors such as the operational efficiency of the plants, transportation logistics and feasibility depending on plant location, fixed and variable costs including transportation and the relative merit order dispatch of power.

Further, under the Case I methodology, state generating company have the flexibility to use their coal optimally within the limits of overall company wise aggregated ACQ as per FSAs. The relevant excerpt from the notification is reproduce below:

“Case 1: Flexibility of utilization of coal aggregated with the State in its own State Generating Stations

(i) The States would use their coal optimally in the power stations of the state power utility within the limits of overall coal company wise ACQ aggregated with them for all FSAs.

(ii) The guiding objective, in this process would be to reduce the transportation cost thereby reducing the variable charges of its plants and also ensuring adequate availability of coal to all power plants as per their optimized requirement starting from most efficient to least efficient in terms of total variable charges.”

From this methodology, it is clear that generating companies have the flexibility to allocate coal within their own plants up to the aggregated ACQ limit.

e) Other Issues

- i. Coal availability fluctuations
- ii. Deviation in received coal GCV by 2-3 grades compared to the declared GCV of the mines.
- iii. Re-declaration of coal grades at mines. Unexpected variations in coal supply from coal companies against MSPGCL's order booking.
- iv. Unplanned diversion of rakes to other plants due to railway logistics issues/Railway route congestions and coal stock levels at TPSs.
- v. Cost-plus coal prices from WCL are index-based and change every six months.
- vi. Frequent changes in Government directions with stringent timelines for implementation.
- vii. The commencement of new cost-plus mines which provides for alternate options.
- viii. Variation in the coal pricing
- ix. Implementation of alternative coal transportation options

12.3 Proposed Utilisation of coal for the period FY 2024-25 (H2) to FY 2029-30

12.3.1 Available Coal Linkages in FY 2024-25

12.3.1.1 In the FY 2024-25, MSPGCL has the following coal linkages for supply to the power stations:

Table 148: Tie-up of Coal under FSA (MMT) in FY 2024-25

TPS	WCL	MCL	SECL	SCCL	FSA Qty
Chandrapur*	12.326	-	-	-	12.326
Koradi	0.169	0.373	0.627	-	1.169
Khaperkheda	1.432	3.879	2.001	-	7.312
Nasik	2.354	-	0.724	-	3.078
Bhusawal#	5.836	-	2.312	-	8.148
Parli	1.708	-	-	-	1.708
Paras	2.503	-	-	-	2.503
Total	26.328	4.252	5.664	-	36.243

MSPGCL has signed FSA with WCL for 2.623 MMT for BTPS Unit 6 & the same is included in above table; Actual coal supplies commences after COD.

12.3.1.2 Further, the bridge linkages available in FY 2024-25 is provided below:

Table 149: Bridge Linkages available with MSPGCL (MMT) for FY 2024-25

TPS	WCL	MCL	SECL	SCCL	Total
Chandrapur (U-8 &9)	2.153	0.909	0.817	-	3.879
Koradi (U-8,9 &10)	3.228	1.364	1.226	1.300	7.118
Parli (U-8)	-	-	-	0.865	0.865
Total	5.381	2.273	2.043	2.165	11.862

12.3.1.3 MSPGCL submits that it has coal supply arrangements from WCL, SECL, SCCL and MCL. The overall tie-up under Fuel Supply Agreement, Bridge Linkages and other MOU route is provided in the table below:

Table 150: FSA Coal Quantum tied up for FY 2024-25 (MMT)

TPS	WCL	MCL	SECL	SCCL	FSA Qty
Chandrapur	14.479	0.909	0.817	-	16.205
Koradi	3.397	1.737	1.853	1.300	8.287
Khaperkheda	1.432	3.879	2.001	-	7.312
Nasik	2.354	-	0.724	-	3.078
Bhusawal#	5.836	-	2.312	-	8.148
Parli	1.708	-	-	0.865	2.573
Paras	2.503	-	-	-	2.503
Addl. MoU	3.000	-	-	3.835	6.835

TPS	WCL	MCL	SECL	SCCL	FSA Qty
Total	34.709	6.525	7.707	6.000	54.940

12.3.1.4 MSPGCL is contemplating supply of 3 MMT from WCL and 3.835 MMT from SCCL (shown above under additional MoU) from Cost Plus Mines. The aforesaid quantum of 54.940 MMT is inclusive of bridge linkages of 11.862 MMT available from WCL and SCCL as shown in the table above.

12.3.2 Available Coal linkages in FY 2025-26 and Beyond

12.3.2.1 In the FY 2025-26, MSPGCL has the following coal linkages for supply to the power stations:

Table 151: FSA Coal Quantum tied up for FY 2025-26 and Beyond

TPS	WCL	MCL	SECL	SCCL	FSA Qty
Chandrapur (U-3 to 7)*	12.326	-	-	-	12.326
Koradi (U-6)	0.169	0.373	0.627	-	1.169
Khaperkheda (U-1 to 5)	1.432	3.879	2.001	-	7.312
Nasik U-3 to 5)	2.350	-	0.724	-	3.074
Bhusawal (U-3 to 6 from WCL) & (4-5 from SECL)	3.213	-	2.312	-	5.525
Parli (U-6 to 7)	1.708	-	-	-	1.708
Paras (U-3 to 4)	2.503	-	-	-	2.503
Bhusawal 6#	2.623				2.623
Total	26.324	4.252	5.664	-	36.239

* WCL Linkage 1.87 MMT from NM UG to OC Exp. cost plus mine is over and above FSA ACQ for CSTPS. Qty included in above table.

FSA signed for WCL Linkage = 2.623 MMT for BTPS Unit 6 (660 MW) added; Actual coal supplies commences after COD.

12.3.2.2 Further, the bridge linkages available in FY 2025-26 is provided below:

Table 152: Tie up of Coal under Bridge Linkages (MMT) for FY 2025-26

TPS	WCL	MCL	SECL	SCCL	Total
Chandrapur (U-8 &9)	1.167	1.565	1.406	-	4.138
Koradi (U-8,9 &10)	1.751	2.348	2.110	1.300	7.509
Parli (U-8)	-	-	-	0.865	0.865
Total	2.918	3.913	3.516	2.165	12.512

Bridge Linkage Coal supply is valid up to 31.08.2025 however, in above table quantities are mentioned up to 31.03.2025

12.3.2.3 Total fuel tie-up for the period FY2025-26 without the additional MoU's is provided below:

Table 153: Coal Quantum tied up for FY 2025-26 (MMT)

TPS	WCL	MCL	SECL	SCCL	FSA Qty
Chandrapur	13.493	1.565	1.406	-	16.464
Koradi	1.920	2.721	2.737	1.300	8.688
Khaperkheda	1.432	3.879	2.001	-	7.312
Nasik	2.350	-	0.724	-	3.074
Bhusawal	5.836	-	2.312	-	8.148
Parli	1.708	-	-	0.865	2.573
Paras	2.503	-	-	-	2.503
Total	29.242	8.165	9.180	2.165	48.751

12.3.2.4 WCL quantity of 29.242 MMT consists of the 16.804 MMT of the Mine Specific Supply (MSS) coal and 9.520 MMT of the cost-plus coal supply and 2.918 MMT of Bridge linkage coal from WCL.

12.3.2.5 From FY 2026-27 onwards, total FSA quantity will remain 48.751 MMT, including 29.242 MMT from WCL. However, 0.867 MMT of Mine Specific Sources (MSS) coal quantity will shift to the cost-plus coal sources, thereby Mine Specific Supply (MSS) coal revised to 15.937 MMT and cost-plus coal supply revised to 10.387 MMT. WCL Bridge linkage coal will remain 2.918 MMT.

12.3.2.6 Given that the realization of coal does not reach 100%, the comparison between Optimistic (100% realization of coal from all sources) vis-à-vis the Pessimistic scenario (overall realization at ~85%) is shown in the table below:

Table 154: Probable PLF based Optimistic and Pessimistic cases

Scenario	Bhusawal 3	Bhusawal 4,5	Chandrapur 3-7	Chandrapur 8,9	KPKD 1-4	KPKD 5	Koradi 6,7	Koradi #8,9,10	Nashik 3-5	Parli 6,7	Parli 8	Paras 3,4	Bhusawal 6	Total Net Generation
Optimistic	85.07%	84.67%	80.33%	85.33%	84.51%	85.09%	74.50%	84.95%	84.67%	85.20%	84.52%	84.83%	84.92%	68,791
Pessimistic	72.37%	72.01%	68.31%	72.45%	71.90%	72.66%	63.45%	72.20%	72.01%	72.45%	71.87%	72.13%	72.21%	58,499

12.3.2.7 In order to improve the supply required for normative limits, MSPGCL has been considering the following:

a) Additional Supplies from SCCL

12.3.2.8 MSPGCL signed MoUs for the supply of additional coal (Bridge Linkage Quantity is exclusive) from SCCL as below –

Period	Signing Date	Pricing	Quantity (MMTPA)
FY 2024-25	MoU dated 27.04.2022, price structure varies yearly	30% over and above notified basic price of power for all grades of coal	3.835

12.3.2.9 MSPGCL submits that this additional coal quantity of 3.835 MMT will be mainly supplied to CSTPS and Parli TPS due to the close proximity of the SCCL mine from these power stations and feasibility of the railway network.

b) Additional Supplies from WCL

12.3.2.10 MSPGCL signed MoU for the supply of additional coal (Bridge Linkage Quantity is exclusive) from WCL as below:

Period	Signing Date	Pricing	Quantity (MMTPA)
FY 2024-25	18.07.2024	Index-linked price for coal is applicable for a period of six months and will be revised after every six months based on the latest index rates.	3.00

12.3.2.11 MSPGCL submits that this additional coal quantity of 3.00 MMT will be mainly supplied to CSTPS, Koradi and Khaperkheda TPS due to the close proximity of the WCL mine from these power stations.

c) Extension of Bridge Linkages

12.3.2.12 As per Policy guidelines for grant of 'Bridge Linkage' to specified end –use plants of Central and State Public Sector Undertakings which have been allocated coal mines/blocks, the Government of India has provided a provision of allowing "Bridge Linkage". The said linkage acts like a short-term linkage to bridge the gap between requirement of coal of a specified end use plant of Central and State PSUs and the start of production from the linked allotted coal mine/block.

12.3.2.13 WCL is supplying the Bridge linkage coal at 40% higher price than declared notified price of coal.

12.3.2.14 As per the letter No. 216 dated 24.04.2024, CIL has now revised Bridge Linkage quantity against previous 100% BL quantity of WCL area & distributing among three subsidiaries of the CIL in the proportion of 33 % in WCL, 33% in SECL & 34 % in MCL.

12.3.2.15 Accordingly, bridge linkage quantity has been reduced in WCL area to 33% from FY24 to FY26. The same has been considered for Fuel Utilization Plan and shown in above table.

12.3.2.16 SCCL bridge linkage of 2.17 MMT is continuous throughout the period from FY24 to FY26. the additional MOU from WCL and SCCL is inclusive of supply under the bridge linkage. Accordingly, the fuel arangment will continue seamlessly till the commencement of production of coal from Gare Palma.

12.3.2.17 After commencing of the coal production from Gare Palma II coal Block, Bridge linkage quantity to be reduced in proportion to the coal prodiction from the WCL mine.

d) Coal Transportation from MCL through Rail-Sea-Rail (RSR) mode

12.3.2.18 The initiative by MSPGCL to implement the Rail-Sea-Rail (RSR) movement of coal, as directed by the Ministry of Power (MoP) and Ministry of Coal (MoC) has been a significant logistical step. MSPGCL initially signed contract agreements with M/s GCMPL for the same and transported 6.38 lakh metric tonnes of raw/washed coal on trial basis from Mahanadi Coalfields Limited (MCL) in Odisha to Nashik TPS and Bhusawal TPS. The process involves rail transport from Talcher (MCL) to Paradip Port (East Coast), sea transport from Paradip to

Dharamtar Port (West Coast), and rail transport again from Dharamtar to the respective TPSs.

12.3.2.19 Key developments in this RSR coal movement include:

- a) **Improvement in Coal Quality:** The coal delivered via the RSR route was of G-12 grade, with no observed grade slippage as compare to loading end even though the GCV loss of 300 kCal/kg is allowed in terms of contract and better-sized coal enhanced unloading and handling processes at the TPSs.
- b) **Performance Improvements:** RSR coal helped to manage coal stock position both at BTPS & NTPS and also promoted better coal management. Technical and financial performance improvements in BTPS after using MCL coal received through RSR, including higher PLF, improved load-ability, reduction in secondary fuel oil consumption (SFOC) and lower auxiliary power consumption. The blending of RSR coal with dry coal further optimized these benefits.
- c) **Logistical Scaling and Planning:** As per Minutes of 753th meeting of the Sub-Group (Gencos) constituted by Infrastructure Constraints Review Committee to look into the issues of critical power houses, MSPGCL, assigned MSPGCL 1.5 rakes per day for the RSR mode. The MoP, aiming to relieve logistical pressure on the railways and promote coastal coal transport, also encouraged transporting 10-15% of coal through the RSR route.
- d) **New Contracts for Extended Coal Transport:** MSPGCL expanded the RSR coal transport effort, tendering 9.6 LMT of MCL coal, awarded to contractors M/s GCMPL (5.76 LMT) and M/s MML (3.84 LMT). The contract volumes were later extended by 50%, with additional allocations to Nashik TPS as needed.

12.3.2.20 Currently following contracts are there for the RSR coal.

Period	Quantity (MMTPA)
01.11.24 to 30.10.25	1.92
01.11.24 to 30.10.25	1.92

12.3.2.21 Provision for the 50% extension in the coal quantity after 02 years is specified in the contracts.

12.3.2.22 Considering the same sourcing of 1.92 MTPA of coal from the Talcher area of MCL through the RSR route was considered for the BTPS U4,5 & U6 and NTPS U3-5 stations for the MYT projections for the period till FY2029-30 as it will ensure a steady supply of coal and help in building adequate coal stock for the power plants. This approach is crucial for maintaining reliable operations and avoiding potential fuel shortages. Also, MoP has communicated that any delay or slackness in implementing the RSR plan could result in the regulation of All Rail Route (ARR) and Rail-Cum-Rail (RCR) rakes by the Sub-Group.

e) Washed Coal

MSPGCL had envisaged beneficiation of coal for ~19.91 MMT of coal from WCL, MCL and SECL. This is due to the change in the bridge linkage quantities (WCL Bridge linkage divided amongst MCL and SECL). Accordingly, for the period FY2024-25 (H2) and FY 2025-26 onwards quantum of coal to be send to the washery is reduced as compared to FY 22-23 to FY 24-25. MSPGCL has appointed and placed LoA on M/s Maharashtra State Mining Corporation (MSMC), as Nodal Agency for supply of wash coal. The details of the washery operators and expected performance parameters as per the washery contracts has already been provided above. Ash content expectations (%) in the coal washery contracts were revised from ADB to ARB basis.

Summary of the washery tenders placed by MSPGCL is provided below for reference:

• **For 80% Raw Coal quantity:**

Table 155: Contract details and cost of washing and transportation charges including taxes (for 80% Raw coal Qty) (Rs/MT)

Contract Agreement	Power Station	WCL	SECL	MCL
Contract agreement dated 10.12.2020 for 80% quantity Total-15.932 MMT WCL- 8.000 MMT SECL- 4.531 MMT MCL- 3.401 MT	Koradi	845.02	1310.20	1402.12
	Khaperkheda	970.24	1310.20	1402.12
	Chandrapur	562.81		
	Paras	1081.53		
	Nashik	1618.37		
	Bhusawal	1196.49		
	Parli	1466.02		

• **For 20% Raw Coal quantity:**

Table 156: Contract details and cost of washing and transportation charges including taxes (for 20% Raw coal Qty) (Rs/MT)

Contract Agreement	Station	WCL	SECL	MCL
Contract agreements for (20% quantity) Total- 3.983 MMT Dated 21.06.2021 (WCL-2.000 MMT) Dated 07.06.2021 (SECL-1.133 MMT) Dated 01.02.2022 (MCL-0.850MMT)	Koradi	843.87	1317.48	1355.12
	Khaperkheda		1317.48	1355.12
	Chandrapur	561.67		
	Paras	1080.39		
	Bhusawal	1195.34		

Additionally, MSPGCL is also planning to procure the washed coal from the MCL IB valley under existing FSA.

Washed Coal from MCL IB valley

12.3.2.23 MSPGCL has an existing FSA with MCL for coal supply as follows:

- a) **FSA dated 26.06.2009** – For the supply of coal to Khaperkheda U1 to U4 and Koradi U6.
- b) **FSA dated 31.01.2013** – For the supply of coal to Khaperkheda Unit 5.

12.3.2.24 MCL operates the IB Valley coal washery in the Lakhanpur area, which produces non-coking washed coal. In a letter (CE/FMA4SMC/O5027) dated 18.12.2023, MSPGCL expressed interest in purchasing and lifting non-coking washed coal from MCL's IB Valley coal washery in addition to the existing coal grade under the current FSAs. MCL has agreed to supply this non-coking washed coal, based on availability, as an additional source alongside the regular coal under the FSAs.

12.3.2.25 To formalize this, two separate Memoranda of Understanding (MoUs) were executed between MSPGCL and MCL, allowing for the supply of non-coking washed coal alongside the existing coal grades under the FSAs dated 26.06.2009 and 31.01.2013.

12.3.2.26 Key terms of the MoUs are as follows are as under:

- a) **No Change to Annual Contracted Quantity (ACQ):** The selling and purchasing of non-coking washed coal will be part of the existing ACQ under the FSAs. There will be no change in the overall ACQ, and MSPGCL will have no right to demand any specific quantity of washed coal. MCL retains the authority to determine the quantum of washed coal supplied.
- b) **Treatment Under Existing FSAs:** The quantity of non-coking washed coal supplied to MSPGCL will be considered as part of the coal supplied under the existing FSAs.
- c) **Pricing and Charges:** The price of the non-coking washed coal will be determined by MCL, as per the price notified by them from time to time. MSPGCL will also bear any statutory charges, taxes, or levies applicable at the time of purchase.
- d) **Coal Specifications:** The non-coking washed coal to be supplied will have an ash content of 33.5%, with a permissible variation of 0.5% (i.e., ash content ranging between 33% and 34%).

12.3.2.27 This arrangement will help MSPGCL supplement its coal supply with higher-quality, non-coking washed coal, thereby enhancing operational efficiency while maintaining its current fuel supply structure under the FSAs.

12.3.2.28 Total of 144 rakes received to MSPGCL power stations of the Non coking washed coal during the month of March -24 to Sept-24.

12.3.2.29 MSPGCL has considered an average of 24 rakes per month, equating to approximately 1.108 MMTPA (24 rakes/month*3,850 MT/rake*12 months) in the fuel projection forecasts up to the year FY2029-30.

f) Flexibility in Imported Coal Procurement

12.3.2.30 MoP vide letter dated 27.06.2024 (Annexure - 28) revised the coal blending advisory and directed to maintain 4% blending (by weight) for period 01.07.2024 to 15.10.2024. Accordingly, MSPGCL issued delivery schedule against second year quantity of ongoing contracts for Khaperkheda, Bhusawal and Nashik TPSs.

12.3.2.31 Currently the imported coal procurement contracts are being placed for supply of 2.08 MMT of imported coal for the period till May 2025.

Table 157: Imported coal procurement contract details

TPS	Contract Quantity (MMT)
Chandrapur	1.00
Bhusawal	0.45
Nashik	1.50
Khaperkheda	0.48
Total	2.08

12.3.2.32 It is to be submitted that the delivery schedule for the above quantity is from November 2024 to May 2025.

12.3.2.33 Further, MSPGCL submits that as per the Imported coal procurement contract, there is a provision for the 50 % extension in the above quantity. Accordingly, after May 2025, MSPGCL can procure the Imported coal of 1.04 MMT in the upcoming months excluding active monsoon period.

12.3.2.34 Additionally, it is respectfully submitted that, MSPGCL procures imported coal as per blending directives of MoP. Consequently, the future prediction for procurement of imported coal will be depend on MoP directives.

12.3.2.35 However, MSPGCL will require to procure additional ~1 MMT of imported coal in order to meet the shortfall of coal.

12.3.2.36 MSPGCL is also mindful of the significant increase in cost of Imported Coal considering the present geo-political situation. MSPGCL is currently procuring coal mainly from Indonesia. HBA is reference price (\$/MT) for thermal coal in Indonesia. The Global increase in prices can be understood from the Harga Batubara Acuan (HBA) indices which is a monthly average price based 25% on the Platts Kalimantan (5,900 kCal/kg GAR) assessments, Argus-Indonesia Coal Index (6,500 kCal/kg GAR), Newcastle Export Index (6,322 kCal/kg GAR) and GlobalCOAL Newcastle (6,000 kCal/kg NAR). Increase in HBA indices (HBA indices as per 6,322 kCal/kg GAR coal with 12.26% total moisture content, 7.94% ash as received and 0.66% Sulphur) together with the Dollar Appreciation (83.01 in Sept 2023 to 83.80 in Sept 2024) gives an impression of the Global turmoil in energy prices as shown in the graph below:

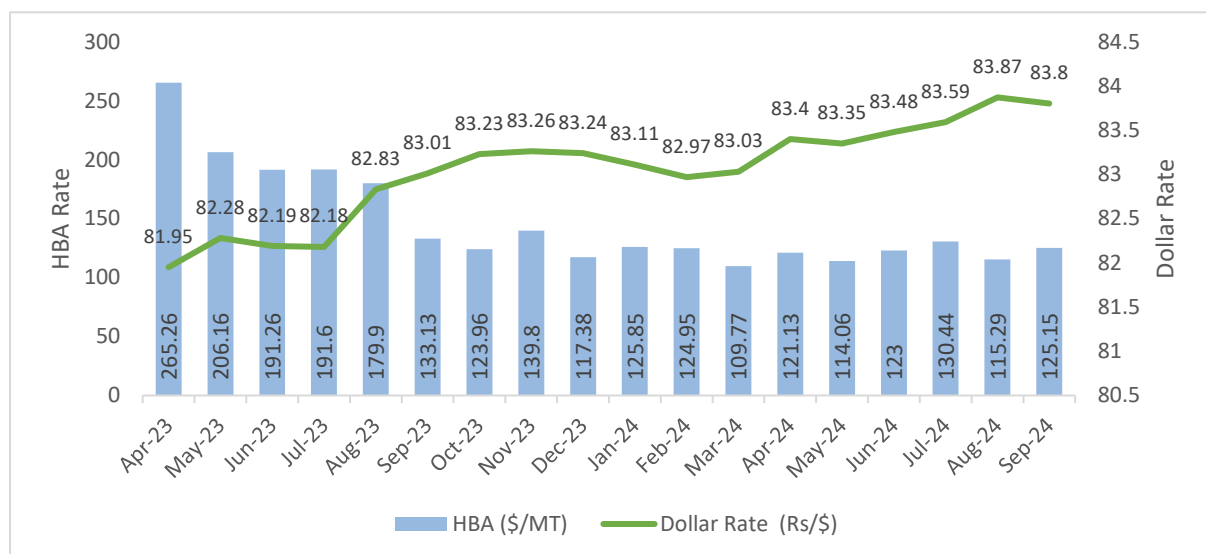
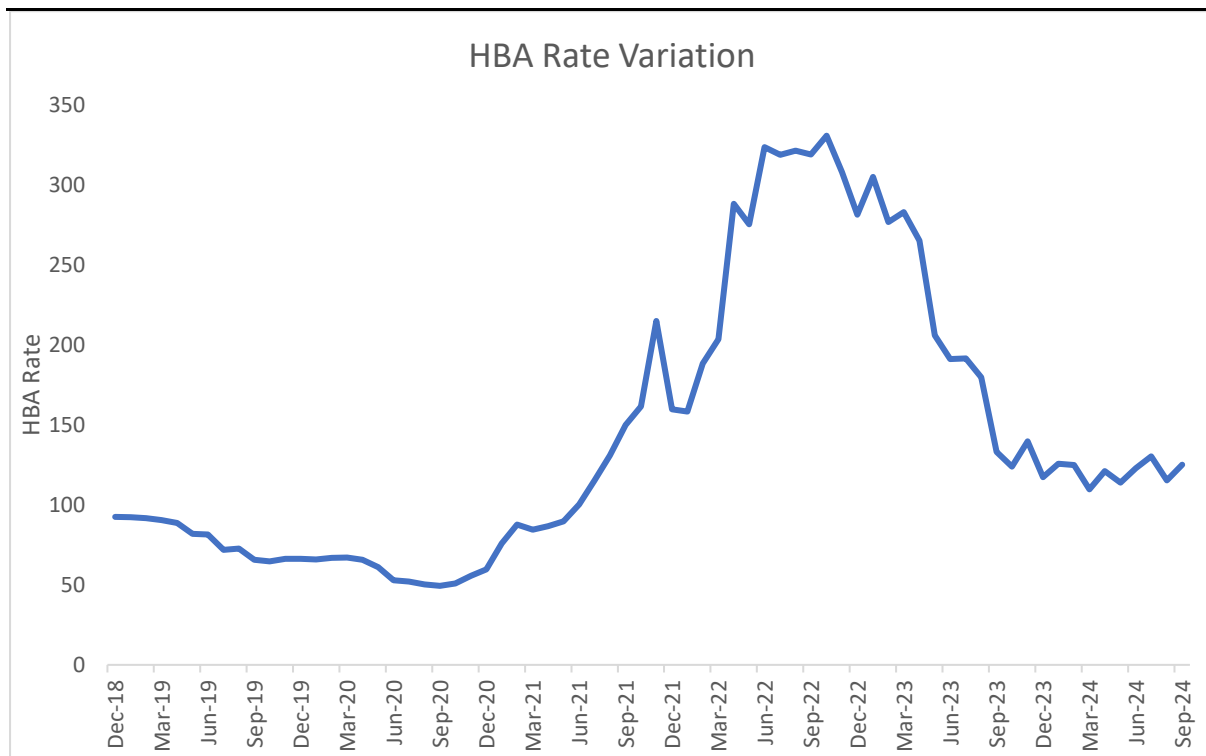


Figure 1: Movement of HBA vis-à-vis dollar prices

12.3.2.37 Accordingly, the imported coal prices are projected at the same rate for the period FY 2024-25 (H2) as prevalent in the months of Oct 2023 to Sep 2024. Thereafter, escalation of 5% per year has been considered on the imported coal during the projection period till FY2029-30 for arriving the ECR.

g) Availability of Coal from Gare Palma-II

12.3.2.38 The overall production schedule from GP-II as per mining plan is provided in the table below. The envisaged commencement of production from GP-II is envisaged in FY 2025-26 (0.25 MMT in first year).

Table 158: Raw coal production (MTPA) from Gare Palma II as per mining plan

Year 1 FY 2025-26	Year 2 FY 2026-27	Year 3 FY 2027-28	Year 4 FY 2028-29	Year 5 FY 2029-30
0.25	1.55	3.00	6.00	9.50

12.3.2.39 The current status and key reasons for shifting the timeline as against the MYT submission are provided below:

- **A Techno-Economic Viability study** was conducted by M/s PFCCL for the utilization of GP-II coal, particularly focusing on the viability of using washed coal at various MSPGCL plants. The study concluded that the use of GP-II washed coal is viable for the Koradi units but not for Chandrapur and Parli units. Consequently, the MSPGCL Board decided that coal from GP-II will be utilized for the existing 660 MW units of Koradi (Units 8, 9 & 10) as well as for the upcoming two 660 MW units at Koradi TPS (Units 11 & 12), instead of using it at Chandrapur and Parli.
- The P&P section reviewed the matter of appointing a consultant for a feasibility study and DPR for a reject-based power plant utilizing GP-II coal washery rejects. It was discussed that since the washability is only 56%, the reject quantity will be significant. Consequently, the focus has shifted to exploring direct transportation of raw coal to the new 2x660 MW project at Koradi and potentially other power stations. The option to sell any surplus coal is also being considered. Given these discussions, the decision was made to halt the appointment of a consultant for the feasibility study and DPR preparation.
- A study for the optimum utilization of coal from GP-II, including the potential for the sale of excess coal, is underway. MSPGCL has engaged M/s Mercados to conduct a cost-benefit analysis, and the report is awaited. Based on this, a strategy for the utilization of raw and/or washed coal from GP-II will be developed.

Status Update:

- **Environmental Clearance (EC):** While the EC was initially granted on 11.07.2022, it was subsequently quashed by the National Green Tribunal (NGT) on 15.01.2024. MSPGCL has since submitted a revised proposal on 15.03.2024 accordingly, Fresh EC granted by MoEFCC on 13.08.2024.
- **Forest Clearance (FC-II):** Although FC-II was granted on 27.01.2023, the formal issuance of FC-II letter from GoCG and transfer of forest land from the Government of Chhattisgarh (GoCG) to MSPGCL was delayed for more than 19 months. Finally, after rigorous follow-ups from MSPGCL, GoM and Ministry of

Coal; GoCG issued FC-II letter on 27.08.2024. However, transfer of forest land is still pending with GoCG

- After transfer of forest land to MSPGCL by GoCG, Mining Lease will be executed followed by asset survey, land acquisition and Mine Opening Permission.
- MSPGCL has requested nominated authority, MoC and SDM, Gharghoda to impose restriction on the construction work.

12.3.2.40 MSPGCL is proactively pursuing the development activities of the mine and expects an expeditious grant of necessary approvals to ensure the mine's contribution to MSPGCL's fuel supply strategy, beginning in FY 2025-26. The projected coal availability from GP-II, once operational, will significantly enhance the fuel security of MSPGCL's generating stations, particularly at the Koradi units.

12.3.2.41 From the perspective of availability of coal, the same will not result in materialization difference as there will be a commensurate reduction in bridge linkages as and when the supply from Gare Palma II mine will commence.

12.3.2.42 The price of coal from Gare Palma II is determined as per the formula in the Coal Mining Agreement. As per the Coal Mining Agreement, the future cost of coal in any year is to be calculated as per the following formula:

Escalated Raw Coal Mining Charge shall be determined as below;

$$RCMCn_{esc} = (BRCMC) \times \{1 + (I_n - I_o)/I_o\}$$

Whereas;

BRCMC	Base Raw Coal Mining Charge
$RCMCn_{esc}$	Escalated Raw Coal Mining Charge for the nth operating financial year
I_o	Base CERC composite index as prevalent during the month immediately preceding the Bid Date
I_n	CERC composite index prevalent during the month in the beginning of the n th operating FY

12.3.2.43 In the current case, BRCMC has been fixed at Rs 883.50/tonne and base composite index (I_o) has been 130.64. Therefore, for any subsequent year, MSPGCL needs to consider the composite index notified by CERC in the month of April for that particular Financial year.

12.3.2.44 The capital cost for the GP II coal mine, as approved in the MSPGCL's Board Resolution dated 05.11.2019, has been considered for computing the annual extraction cost. MDO (Mine Developer and Operator) charges for the period from August 2016 to March 2024 have been calculated based on the CERC composite index, with an escalation rate of 6.45%, determined using a 5-year CAGR from FY2018-19 to FY2023-24. For the period from April 2024 onwards, MDO charges have been escalated considering the same 6.45% rate. The following table shows calculation of escalation rate considered for calculating future years mining charges.

Table 159: Escalation Factor for Mining Charges

Quoted Mining Charges (Rs/MT)	883.50								
	Aug-15	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
CERC Composite Index	130.64	185.78	135.33	140.84	148.94	146.03	159.43	187.03	192.53
Yearly Escalation (CERC Composite Index) (Escalation with base year) (%)		42.2%	3.6%	7.8%	14.0%	11.8%	22.0%	43.2%	47.4%
Mining Charges (Esc with base year) (Rs/MT)		883.50	915.22	952.48	1,007.23	987.58	1,078.17	1,264.86	1,302.02
Escalation factor for 5 years FY19 to FY24 (%)									6.45%

12.3.2.45 Costing of the GP-II coal is considered based on the mining charge escalated as per the CERC composite index till April 2024. The indicative coal prices including taxes and excluding transportation is as follows:

Period	Coal Price (Rs/MT)
FY2025-26	2,840
FY2026-27	2,991
FY2027-28	6,115
FY2028-29	4,764
FY2029-30	4,349

12.3.2.46 Transportation cost as per the railway freight FOIS is considered as 1,666 Rs/MT for Chandrapur 8,9 units; 1,289 Rs/MT for Koradi 8,9,10 and 2,289 Rs/MT for Parli 8.

12.3.2.47 The COD of the GP II mine is anticipated in FY 2027-28. Hence, considering capex on annual extraction cost, the overall cost of coal will increase from FY 2027-28.

12.3.2.48 As fired GCV for the GP II coal is considered as 3265 kCal/kg for computing the energy charges.

12.3.2.49 MSPGCL submits that, as per the Reg. no. 39.13 of the MERC MYT Regulations, 2024., it will separately approach the Hon'ble Commission for the determination of the price of GP II. The excerpt from the regulations is given below for ready reference:

"39.13 A Generating Company with integrated mine(s) shall file a Petition for determination of input price of coal or lignite from the integrated mine(s) not later than 60 days from the date of commercial operation of the integrated mine(s)

Provided that the Generating Company having integrated mine(s) shall file Petition before the Commission for determination of the input price of coal or lignite from the integrated mine(s) containing the details of expenditure incurred and projected to be incurred duly certified by the Auditor, in accordance with the Formats that may be stipulated by the Commission."

12.3.2.50 As already apprised to this Hon'ble Commission in Case 231 of 2019, the Board of MSPGCL had approved utilization of coal from Gare Palma II in Koradi units. However, in case required, coal from Gare Palma II can also be blended with existing linkages in other stations based on fitment of such energy charges in the merit order dispatch of the stations. Since the quantum of coal envisaged in the initial years is miniscule, MSPGCL will submit the details regarding actual

production schedule and expected prices based on CPI and WPI movements in the FAC submission.

12.3.2.51 Further, as mentioned in the MTR order clause no. 8.3.11, MSPGCL has planned to wash different coal seams during actual mining to ensure consistent quality of washed coal based on the MOEF notification dated 02.01.2014 (Annexure-29) that made it mandatory for all coal-based power plants located 500 km or more from the pit-head or coal mine to use raw or blended or beneficiated coal with no more than 34% ash content. However, MoEF notification dated 21.05.2020 (Annexure- 29) under the Environment (Protection) Act, 1986, permitting the use of coal with ash content higher than permitted earlier. Under the new notification, TPP's will be able to use coal irrespective of ash content and will be liable for proper disposal of coal ash and meeting emission standards.

12.3.2.52 Consequently, for the time being, MSPGCL has factored raw coal from the GP II mines into its Fuel Utilization plan. Plan for usage of the beneficiated coal/raw coal can be taken in future depending upon the actual coal receipt from the mines.

12.3.2.53 As coal production from the GP II coal mine increases, the bridge linkage coal allocated to the End Use Plants (EUPs) will be gradually replaced in proportion to the heat content of the coal produced from the GP II mine. Bridge Linkage coal reduction considered in order of SCCL, MCL, SECL and WCL in order of the increasing effective coal price (Rs/mCal).

Table 160: GP II coal production schedule and proposed replacement of Bridge linkage coal

Period	GP II coal Production	SCCL	MCL	SECL	WCL	Total	SCCL	MCL	SECL	WCL	Total
		Allocated Bridge Linkage									
FY 2025-26	-	2.17	3.91	3.52	2.92	12.51					
		Replacement proposed					Balance Bridge Linkage available				
FY 2025-26	0.25	0.26	-	-	-	0.26	1.91	3.91	3.52	2.92	12.25
FY 2026-27	1.55	1.60	-	-	-	1.60	0.56	3.91	3.52	2.92	10.91
FY 2027-28	3.00	2.17	0.92	-	-	3.09	-	2.99	3.52	2.92	9.42
FY 2028-29	6.00	2.17	3.91	0.07	-	6.15	-	-	3.45	2.92	6.37
FY 2029-30	9.50	2.17	3.91	3.52	0.13	9.72	-	-	-	2.79	2.79

12.3.2.54 Bridge linkage coal will gradually reduce to nil with the increase in the coal production of GP II coal. Because of the variation in the GCV due to the initial seams, MSPGCL may take the appropriate call on utilisation of the GP II coal during that time.

h) Coal from Commercial Mines:

12.3.2.55 In year 2023, MSPGCL explored possibility of procurement of coal from commercial mines; however, it is discovered that coal production from prospective commercial mines is in initial stages and offered rates are on higher side.

12.3.2.56 To date, the Ministry of Coal has auctioned approximately 64 mines under the commercial auction process. However, production from these commercial mines reached only 17.5 MT in FY 2023-24.

12.3.2.57 In the 10th tranche of commercial coal mining auction, the Ministry of Coal has auctioned approximately 67 mines spread across India. Assuming, the production starts in next 2/3 years, MSPGCL will keep procurement of coal from Commercial coal mining as alternative in future years.

i) E-auction coal procurement:

12.3.2.58 MSPGCL may explore the potential to procure coal through e-auctions (Single window mode agonistic e-auction), which could serve as a flexible option for meeting its coal requirements. E-auctions provide an opportunity to source coal directly from a variety of suppliers, including CIL subsidiaries and other commercial miners, allowing MSPGCL to access spot market coal without long-term contracts. This method enables the company to manage shortfalls in coal supply and adapt to fluctuating demand.

12.3.2.59 The pricing in e-auctions can be volatile and may be higher than linkages or long-term agreements, making cost management a challenge. The reserve price set for e-auction coal is higher than the coal provided under Fuel Supply Agreements (FSA) or linkage agreements offered to MSPGCL. However, e-auction coal could serve as a viable alternative to imported coal, especially for procuring smaller quantities. This coal can be transported via rail, road, or a combination of both, and short-term transportation contracts may be suitable for ensuring efficient logistics. This approach provides MSPGCL with additional flexibility in managing coal supply, particularly when conventional sources are inadequate.

j) Captive Mining:

12.3.2.60 MSPGCL has the potential to explore coal procurement through captive coal mining as a strategic option to secure a steady and reliable coal supply. By acquiring or partnering in coal blocks allocated for captive mining, MSPGCL could directly control the extraction and supply of coal for its power plants, reducing dependence on external sources like Coal India Limited (CIL) or commercial auctions. This approach could offer long-term cost savings by avoiding fluctuating market prices and transportation challenges associated with other procurement methods. Moreover, captive coal mining provides the advantage of aligning production with MSPGCL's specific requirements, ensuring consistent fuel availability. Additionally, MSPGCL may explore the possibility of bidding and developing mines, similar to its efforts with the Gare Palma-II mine, as part of a strategy to achieve greater self-reliance in the future.

k) Procurement through Coal Exchange

12.3.2.61 On 21st October 2024, G. Krishna Reddy, Union Minister for Coal and Mines, has announced that India is set to launch its first-ever coal exchange. The coal exchange aims to create a broader, more competitive market for coal, enabling both buyers and sellers to access the commodity more efficiently. It will also establish a transparent benchmark pricing system, ensuring that coal transactions are conducted in a fair and regulated manner. The introduction of the coal exchange will help in liberalizing the coal market and improving pricing mechanisms in the country. In future, MSPGCL may procure coal from Coal Exchange as at competitive price.

I) Coal Linkage Rationalisation:

12.3.2.62 Coal Linkage Rationalization is a policy initiative by the Ministry of Coal to reduce the distance between coal mines and consumers like thermal power producers. Rationalisation of the coal linkage has resulted in decrease in transportation cost from the mines to the power plants leading to more efficient coal based power generation. MSPGCL has coal linkages with MCL/SECL and has incurring a considerable coal transportation cost. MSPGCL may explore such possibility in future with new mines coming / increase in coal production with all companies.

Coal Allocation various stations – key consideration

12.3.2.63 For the purpose of MYT petition, MSPGCL had relied on the approach formulated by CEA under Case-I i.e. Use of Coal aggregated with the State in its own State Generating Stations. As per CEA, the basic approach under this case is that the States would use their coal optimally in the power stations of the state power utility within the limits of overall Coal Company wise ACQ aggregated with them for all FSAs.

The methodology further provides guidance to the coal companies as follows:

*“To achieve the objective of reduced energy charges the Generating company / State shall communicate to CIL/SCCL its station wise requirement from different coal sources within the ambit of overall ACQ allotted to the Company/ State. If supply from the identified source is not possible/feasible, CIL/SCCL shall have the flexibility of offering coal supply from its various subsidiaries to facilitate assured level of supply for that State and CGS and for meeting MOEF stipulations regarding transportation etc. **As far as possible, alternate source of supply of coal of CIL/SCCL shall be of similar landed cost and quality as sought by the Generating company/State.**” (Emphasis Supplied)*

12.3.2.64 Given the previously mentioned provisions, MSPGCL had initially proposed the least cost generation under the following principles:

- a. **Flexible Use of WCL coal in stations located nearer to mines**
- b. **Usage of MCL, SECL and SCCL as per linkages since they were relatively costlier landed cost than WCL.**

12.3.2.65 WCL is not supplying the coal to the MSPGCL power stations at the notified rates. During the period from April 2024 to September 2024, not even a single rake was received from WCL at the notified price. WCL has shifted all the coal from notified to the Mine specific coal (16.8 MMT for FY2025-26 and 15.94 for FY2026-27 onwards)

12.3.2.66 Besides, the constraints in availability of Railway rakes, non-availability of the WCL coal at notified prices, supply of Mine specific coal (~16-17 MMT) and larger realization of cost plus coal (~10 MMT) under the coal shortage scenario lead to reconsideration of fuel utilisation amongst the power stations. Accordingly, for the 5th control period, the following practical approach that can help in optimization of cost of generation is proposed by MSPGCL:

- a. Only mine-specific coal from WCL is considered for all the stations as due to unavailability of the coal at notified prices.
- b. WCL mine specific coal which is comparatively cheap as compared to Cost plus coal is allocated primarily to far off stations viz. Bhusawal, Paras, Parli and Nasik.
- c. WCL cost plus coal is primarily allocated to Chandrapur and Khaperkheda units due to close proximity from the coal mines.
- d. Usage of wash coal from WCL, MCL & SECL is considered for Koradi 8, 9, 10 since it will be prudent to use improved quality coal in efficient supercritical units.
- e. Usage of MCL (Notified/ Bridge Linkage / IB Valley Washed Coal) coal is considered for Chandrapur, Khaperkheda and Koradi units being in the proximity of the mines and the overall efficiency of the units.
- f. Usage of MCL RSR mode coal is considered for Bhusawal and Nashik units as RSR mode is feasible in those stations
- g. Usage of SECL coal is considered in Bhusawal, Chandrapur, Khaparkheda.
- h. Usage of SCCL coal is considered for Chandrapur and Parli units because of the Railway logistics issues.
- i. Usage of WCL MoU coal is considered for Khaparkheda, Koradi and Chandrapur units because of the close proximity from the mines.
- j. GP II coal production is expected from FY 2025-26. It will supply to the EUP. End User Plants for the GP-II coal are Koradi 8,9,10, Chandrapur 8,9 and Parli stations. GP II is allocated to the majorly to the Koradi 8,9,10 and Chandrapur 8,9, considering the Rail Logistic issue for Coal transportation from Mine in Odisha to the Parli station.
- k. As coal production from the GP II coal mine increases, the bridge linkage coal allocated to the End Use Plants (EUPs) will be gradually replaced in proportion to the heat content of the coal produced from the GP II mine.
- l. Bridge Linkage coal reduction considered in order of SCCL, MCL, SECL and WCL in order of the increasing effective coal price (Rs/mCal).

12.3.2.67 Proposed Coal Mix proposed for the period FY2025-26 is as follows:

Table 161: Proposed Coal Mix for the period FY2025-26

Station	Raw	Wash	Imported
Bhusawal Unit 3	100%	0%	0%
Chandrapur Units 3 -7	88%	6%	6%
Khaperkheda Units 1-4	76%	19%	5%
Koradi Unit 6	92%	0%	8%
Nashik Units 3-5	90%	0%	10%
Paras Units 3-4	100%	0%	0%
Parli Units 6-7	100%	0%	0%
Khaperkheda Unit 5	74%	17%	9%
Bhusawal Units 4-5	72%	19%	8%
Koradi Units 8-10	8%	92%	0%
Chandrapur Units 8-9	86%	5%	8%
Parli Unit 8	100%	0%	0%
Bhusawal Unit 6	85%	0%	15%
Total	71%	24%	5%

12.3.2.68 The coal mix will vary annually based on the increasing production from the GP II coal mine and the corresponding reduction in bridge linkage coal. As a result, units Koradi U8-10, CSTPS U8-9 will see a higher proportion of GP II coal in their fuel mix, leading to a decrease in the use of WCL and MCL bridge linkage coal. Consequently, the proportion of washed coal at these stations will also fluctuate in line with the coal supply composition

12.3.2.69 MSPGCL submits that WCL is supplying coal to all the stations and therefore it is flexible to shift the coal from WCL to stations having least cost of generation. The stations viz. Chandrapur, Khaperkheda and Koradi fall closer the WCL mines supplying coal to these stations. Accordingly, MSPGCL has considered allocation of cost plus coal to such stations.

12.3.2.70 Imported coal has been considered in Bhusawal, CSTPS, KPKD, Koradi and NTPS units

12.3.2.71 The Fuel Utilization Plan is prepared based on the previous period actual GCV and Price of the coal which depend upon the station-wise coal receipts from various mines and collieries.

12.3.2.72 MSPGCL notes that while the Fuel Utilization Plan provides a general framework under ideal conditions, in practice, coal usage may need to be adjusted according to real-time requirements and operational challenges. Therefore, MSPGCL may modify its coal usage strategy in the future to accommodate changing circumstances and ensure optimal power generation. Reasons for the deviation in the Fuel utilization plan for the period FY2022-23 & FY2023-24 and actual fuel utilization is already mentioned above. Actual fuel utilization for the period FY2025-26 to FY2029-30 may differ from the Fuel utilization plan considering the same reasons. The following factors can lead to the variations between the fuel plan submitted and actual fuel utilization at the stations.

- coal availability fluctuations
- Frequent changes in Government directions with stringent timelines for implementation.

- Re-declaration of coal grades at mines
- The commencement of new cost-plus mines
- Changes in coal pricing
- Directives for blending imported coal
- Implementation of alternative coal transportation options
- Railway route congestions

12.3.3 Strategy to meet shortfall of coal in real time

12.3.3.1 The increasing integration of renewable energy into the grid has led to a decline in the Plant Load Factor (PLF) of thermal generating stations, resulting in annual PLFs ranging from 50-60%. Under normal circumstances, MSPGCL's current coal reserves are expected to meet scheduled requirements. However, unforeseen events, such as those experienced in the first half of 2022-23, may necessitate additional coal procurement. To address such contingencies, MSPGCL plans to supplement its coal supply through MoU-based procurement and requests for additional imported coal. To ensure adaptability, MSPGCL will maintain flexibility in its procurement plan, tying up additional MoU coal as needed to align with MSEDCL's requirements.

12.3.4 Prices and GCV of Fuels and Escalation factor for fuel cost

12.3.4.1 For the purpose of working out the Fuel prices and GCV for FY 2024-25 (H2), the actual prices and GCV during the period Oct-23 to Sept-24 have been considered along with certain considerations/improvements based on overall GCV of coal (ARB) for MSPGCL as a whole. In light of the above, the following coal mix, GCV and prices are assumed for FY 2024-25 (H2):

Table 162: Price and GCV for FY 2024-25 (H2)

	Coal type	Bhusawal 3	Bhusawal 4,5	Chandrapur 3-7	Chandrapur 8,9	KPKD 1-4	KPKD 5	Koradi 6	Koradi 8,9,10	Nashik 3-5	Parli 6,7	Parli 8	Paras 3,4	Bhusawal 6
GCV	Raw	3,889	3,917	4,050	4,044	3,986	3,988	4,035	3,931	3,915	3,953	3,958	4,088	3,917
As Billed (kCal/kg)	Washed	-	3,847	3,919	3,898	3,566	3,574	-	3,923	-	-	-	-	-
	Imported	-	4,753	4,681	4,682	4,686	4,684	4,652	4,652	4,665	-	-	-	4,753
Landed	Raw	4,921	4,872	4,285	4,259	3,306	3,287	2,903	4,919	4,759	6,376	6,390	4,509	4,872
Price	Washed	-	4,584	4,231	4,420	4,206	4,285	-	4,948	-	-	-	-	-
(Rs/MT)	Imported	-	11,716	11,369	11,465	12,787	13,208	11,807	11,796	11,145	-	-	-	11,716

12.3.4.2 MSPGCL will endeavor to purchase the coal based on the requirements of MSEDCL. However, certain restrictions in the MYT Tariff Regulations 2024 (51.10) prohibit the cash flows required to make purchasing decisions as provided below:

"51.10 Adjustment of ECR [Fuel Surcharge Adjustment] on account of variation in price or heat value of fuels

Any variation in Price and Gross Calorific Value of coal/lignite or gas or liquid fuel as billed by supplier less actual GCV loss subject to maximum limit specified in the Regulation 51.6 of these Regulations vis-a-vis approved values shall be adjusted on month to month basis on the basis of average Gross Calorific Value

of coal/lignite or gas or liquid fuel in stock received and weighted average landed cost incurred by the Generating Company for procurement of coal/lignite, oil, or gas or liquid fuel, as the case may be for a power Station:

Provided that the Generating Company shall upload all GCV related data and supporting for claim for Fuel Surcharge on the website for public scrutiny.

Provided that in its bills, the Generating Company shall indicate Energy Charge Rates at base price of primary and secondary fuel approved by the Commission and the Fuel Surcharge to it separately:

Provided further that the Generating Company shall provide to the Beneficiaries of the generating Station, the details of parameters of GCV and price of fuel for each type of fuel, i.e., domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel, etc., as per the forms prescribed by the Commission:

Provided also that in case of part or full use of alternative source of fuel supply by coal based thermal generating stations other than as agreed by the Generating Company and beneficiary/ies in their power purchase agreement for supply of contracted power on account of shortage of fuel or optimization of economical operation through blending, the use of alternative source of fuel supply shall be permitted to generating station:

Provided also that in such case, prior permission from beneficiaries shall not be a precondition, unless otherwise agreed specifically in the power purchase agreement:

Provided also that the weighted average price of alternative source of fuel shall not exceed 5% of base price of primary and secondary fuel approved by the Commission:

Provided also that where the Energy Charge Rate based on weighted average price of fuel upon use of alternative source of fuel supply exceeds 5% of base Energy Charge Rate as approved by the Commission for that year, prior consultation with beneficiary/ies shall be made at least three days in advance:

Provided also that in case use of alternative source of fuel is not opted for, based on prior consultation with beneficiary/ies, then the Generating Company shall be entitled to consider deemed Availability to the extent of reduced Availability on account of fuel non-availability, for the purpose of Availability computations for recovery of Annual Fixed Charges in accordance with Regulation 51.2:

Provided also 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 fuels as billed by supplier shall also be provided separately, along with the bills of the respective month:

Provided also that copies of the bills and details of parameters of GCV and price of fuel, i.e., domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel, etc., details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal shall also be displayed month-wise on the website of the Generating Company, and should be available on its website for a period of three months.” (Emphasis Supplied)

12.3.4.3 Duly considering this aspect, MSPGCL has kept an escalation factor of 5% (Y-o-Y) for the landed prices of fuels over the FY2024-25 (H2) prices considered in the petition. In case the actual fuel prices are lower than the projected prices, the same will automatically get factored in the FAC prices worked out for the month.

12.4 Relaxation in GCV variations between GCV As Billed (Loading) vis-à-vis GCV ARB unloading

12.4.1.1 In Case no 132 of 2023 dated 01 February 2024 in the matter of Maharashtra State Power Generation Co. Ltd. (MSPGCL) seeking review of Mid Term Review (MTR) Order dated 31 March 2023 in Case No. 227 of 2022 in the matter of final truing-up of Aggregate Revenue Requirement (ARR) of FY 2019-20, FY 2020-21 and FY 2021-22, provisional truing-up of ARR of FY 2022-23 and revised projections of ARR and revised Tariff for FY 2023-24 and FY 2024-25 and provisional Tariff for Bhusawal Unit No. 6.

“16.45 The Commission also notes that the Commission in its Order dated 1 March, 2021 on Review Petition filed on MYT Order under provisions of Power to Relax of MYT Regulations, 2019 has relaxed the GCV loss up to 650 kCal/kg (i.e., additional 350 kCal/kg over and above the GCV loss specified in MYT Regulations) for FY 2020-21. Hence, the GCV loss in excess of 650 kCal/kg cannot be allowed as this was the target specified for first year of the Control Period. Accordingly, the Commission relaxes the GCV loss by 350 kCal/kg and allows total GCV loss of up to 650 kCal/kg for FY 2023-24 and FY 2024-25 subject to following conditions:

- *MSPGCL shall adhere to the percentage of washed coal to be utilized as per fuel utilization plan submitted as part of MTR Petition.*

16.46 Accordingly, the relaxed GCV loss permissible for these 2 years shall be as follows:

- *FY 2023-24: Relaxation of 350 kCal/kg in loss of GCV in addition to 300 kCal/kg as per MYT Regulations, 2019.*
- *FY 2024-25: Relaxation of 350 kCal/kg in loss of GCV in addition to 300 kCal/kg as per MYT Regulations, 2019.”*

12.4.1.2 In this regard, MSPGCL submits the following:

- a. The overall variation in GCV –As Billed (loading EQ basis) vis-à-vis the GCV ARB at unloading points in FY 22-23, FY 2023-24 and FY 2024-25 (H1) is provided below:

Table 163 : Variations in GCV over the years (kCal/kg)

Station	FY 2022-23			FY 2023-24			FY 2024-25 H1		
	As Billed Loading	ARB Unloading	Variation	As Billed Loading	ARB Unloading	Variation	As Billed Loading	ARB Unloading	Variation
Bhusawal Unit 3	4,109	3,188	920	3,904	3,144	761	3,918	3,253	665
Chandrapur Units 3-7	4,001	3,106	894	4,047	3,186	861	4,055	3,260	795
Khaperkheda Units 1-4	3,907	3,126	781	3,907	3,155	752	3,878	3,031	847
Koradi Unit 6	3,787	2,680	1,107	3,948	2,830	1,118	4,025	2,992	1,032
Nashik Units 3-5	4,051	2,835	1,216	3,937	2,958	979	3,886	3,156	730
Paras Units 3-4	4,136	3,217	919	4,160	3,314	846	4,026	3,442	585
Parli Units 6-7	3,947	3,282	665	3,930	3,252	678	3,957	3,326	631
Khaperkheda Unit 5	3,921	3,132	789	3,921	3,157	764	3,875	3,030	845
Bhusawal Units 4-5	4,171	3,214	957	3,950	3,212	738	3,921	3,217	704
Koradi Units 8-10	3,854	2,798	1,057	4,014	3,010	1,004	3,889	3,014	875
Chandrapur Units 8-9	4,044	3,131	913	4,045	3,201	844	4,073	3,299	774
Parli Unit 8	3,947	3,282	665	3,930	3,252	678	3,962	3,314	648
Weighted Average	4,020	3,123	897	3,992	3,175	817	3,968	3,205	764

- b. As may be observed from the table above, the weighted average deviations between the GCVs have been around 800 kCal/kg with deviations in certain stations as high as 900-1200 kCal/kg.
- c. In this regard, the initiative of MSPGCL to reduce the variations are summarized below:
- MSPGCL has established a Coal Assurance Team (CAT), consisting of regular employees, including engineers, chemists, and technicians. These team members are deployed to various coal sidings of WCL, SECL, MCL, and SCCL to oversee and monitor coal quality, quantity, and the activities of Third-Party Sampling Agencies (TPSA).
 - Additionally, retired experienced MSPGCL employees have been assigned to the loading points to supervise and witness coal sampling and preparation, ensuring adherence to quality standards.
 - Given that the majority of coal is dispatched from WCL sidings, MSPGCL has also appointed a Supervision Monitoring and Coordination (SMC) agency. This agency is responsible for overseeing the activities of TPSA, monitoring raw coal dispatches to MSPGCL's power stations, and ensuring continuous monitoring of coal quality and quantity at the loading end, around the clock.
 - MERC in its MYT order, has emphasized the need to minimize discrepancies in GCV between the loading and unloading ends. This directive has been communicated to TPSA and the SMC agency, and regular reviews are

conducted with these agencies to improve coal quality and ensure compliance with MERC guidelines.

- Points as above and Following Targets are given to Third party sampling agencies
 - The difference between the loading end Equivalent GCV (Eq. GCV) and unloading end As Received Basis GCV (ARB GCV) must not exceed the limit of allowed by Hon'ble Commission or specified by MERC MYT Reg.
 - For WCL, the difference between loading end and unloading end Equivalent GCV (Eq. GCV) must be within a limit of 300 kCal/kg.
 - Multiple communications have been sent to coal companies, requesting the dispatch of coal in line with the declared grade and as per the terms of the FSA.
 - Issues related to FSA, coal quality, and sampling have been raised in various meetings and through formal letters to coal companies, CIL, the MoC and MoP.

12.4.1.3 As may be observed from the submissions above, MSPGCL is not leaving any stone unturned in order to curb the variations between loading and unloading end GCV. It may be appreciated till the time unloading of coal has happened, the coal has not even been handled by MSPGCL. The huge difference in loading and unloading end GCV even on Equilibrated basis is therefore getting burdened on MSPGCL for no fault at its end. While, there would not be any deficiency on part of MSPGCL to pursue such measures which can help reduce this variation, however, loading this entire burden of variations above 750 kCal/kg will mean a tremendous financial impact on the finances of the company.

12.4.1.4 MSPGCL therefore requests the Hon'ble Commission to kindly allow the entire variation in GCV between loading and unloading points be allowed as a pass through. However, for the purpose of calculations, the GCV variation of 750 kCal/kg has been considered as a cap for working out the energy charges.

12.5 Gas supply for GTPS Uran

12.5.1.1 The annual gas requirement of Uran GTPS is ~3.5 MSCMD. Due to less production levels of APM gas, the present allocation of APM gas from M/s GAIL is considerably lower as compared to DNQ of 3.5 MMSCMD. The supply of natural gas supplied by M/s GAIL is fluctuating based on upstream gas availability from M/s ONGC. The average gas receipt for GTPS, Uran for last few years is as below:

Table 164: Average Gas receipt for GTPS Uran (MMSCMD)

Financial Year	Daily Normative Qty.	Average gas receipt (MMSCMD)		
		APM gas	Non - APM gas	Total gas
FY 2014-15	2.31	1.55	0.73	2.28
FY 2015-16	1.96	1.53	0.44	1.97
FY 2016-17	2.24	1.80	0.40	2.20

Financial Year	Daily Normative Qty.	Average gas receipt (MMSCMD)		
		APM gas	Non - APM gas	Total gas
FY 2017-18	2.21	2.15	0.0021	2.152
FY 2018-19	1.79	1.75	0.0	1.75
FY 2019-20	1.86	1.77	0.0	1.77
FY 2020-21	1.404	1.34	0.0	1.34
FY 2021-22	1.543	1.51	0.0	1.51
FY 2022-23	1.164	1.81	0.0	1.81
FY 2023-24	1.31	1.09	0.0	1.09
FY 2024-25 (Apr-24 to Sep-24)	2.351	1.70	0.0	1.70

12.5.1.2 Thus, unless there is any improvement in APM + Non-APM gas supplies, the shortfall of gas is expected to be about 1 MMSCMD for 3 GT operation and about 2 MMSCMD for 4 GT operation.

12.5.1.3 In future, MSPGCL may explore the possibility of procurement of RLNG/ Spot gas from M/s GAIL. However, in the back drop of present very high spot gas prices, it is only possible if high spot gas prices are allowed to be recovered in the subsequent months without any capping.

12.5.1.4 In such case, MSPGCL can explore possibility of running the machines by procurement of spot gas from open market in case the impact of high spot gas prices is allowed to be recovered in the subsequent months without any capping.

12.6 Use of Biomass Pellets

MSPGCL also has a mandate for usage of biomass pellets in the stations based on the directives from the Government of India.

As per GoI, MoP notification F.No.11/86/2017-Th-II (C.NO. 238797) dated 16.06.2023 (Annexure - 30) on revised policy for Biomass utilization for power Generation through Co-firing in coal based power plants which says:

'All coal based thermal power plants of power generation utilities with bowl mills, shall on annual basis mandatorily use minimum 5% blend of biomass pellets made, primarily, of agro residue along with coal with effect from FY 2024-25. The obligation shall increase to 7% with effect from FY 2025-26'

Based on the mandate for Biomass utilization as per the policy above, following quantities of pellet requirement are finalized against Board Resolution considering 7% of raw coal consumed as per past data:

Table 165: Annual Pellet requirement at MSPGCL power stations (MT)

TPS	Daily pellet requirement (MT)	Annual pellet requirement (MT)
KTPS-U- 8/9/10	1,332	3,23,573
KTPS- U-6	141	34,324
KTPS	1,473	3,57,897
CSTPS- U- 3 to 6	1,401	3,40,400

TPS	Daily pellet requirement (MT)	Annual pellet requirement (MT)
CSTPS- U-8/9	874	2,12,442
CSTPS	2,275	5,52,842
KPKD- U- 1 to 4	723	1,75,773
KPKD - U- 5	494	1,19,995
KPKD	1,217	2,95,768
BTPS- U- 3	84	20,462
BTPS- U- 4/5	769	1,86,796
BTPS	853	2,07,258
PRL - U-8	145	35,274
NTPS - 3 to 5	293	71,121
TOTAL	6,256	15,20,160

Station-wise status of pellet procurement is as follows:

- Bhusawal TPS:** Tender is refloated on 30.04.2024 for the procurement of 850 TPD (2,07,258 MT per year) of Non-Torrefied Biomass Pellets for Bhusawal TPS for (3+1) year. Technical Bid is opened on date 09.07.2024 and evaluation is under process.
- Koradi TPS:** Tender is refloated on date 29.04.2024 for the procurement of 200TPD (48,800 MT) of Non-Torrefied Biomass Pellets for Koradi Unit-6 for one year. Technical Bid is opened on date 05.07.2024, and evaluation is under process.
- Khaperkheda TPS:** Tender was floated on date 16.02.2024 for the procurement of 50TPD (12,200 MT) of Torrefied Biomass Pellets for Khaperkheda Unit-5 for one year. Tender is finalized and LOA dated 07.06.2024 awarded to M/s Avaneesh Chemicals, supply expected to start from October 2024.

MSPGCL will consider procurement of such pellets for remaining TPS in near future.

MSPGCL submits that, given the uncertainty in the availability and consistent supply of biomass pellets, MSPGCL has not currently included biomass pellets in its fuel mix. However, MSPGCL is actively making efforts to procure pellets and utilize them in its power stations in order to comply with the MoP guidelines. In case of usage of pellets in the next MYT period, MSPGCL may be allowed to submit the claims towards such usage as part of the relevant period FAC computations, as and when the pellets are used.

12.7 Key Constrains in Utilisation of Proposed Coal Mix going forward

- 12.7.1.1 The key submission of MSPGCL for the aforesaid utilisation as already submitted in the MTR petition is submits below for reference:

“MSPGCL submits that coal is supplied from multiple collieries of the coal companies having varying grades of GCV. Typically, MSPGCL shares its requisition from such collieries on a monthly basis. However, the actual supply of coal is based on availability of coal in the colliery and commensurate availability

of railway rakes. The supply is currently through various modes viz. rail, road and ropeways.

- a. Impact of coal available from any source on the variable cost of its TPS*
- b. Merit order position of the plant*
- c. Efficiency of operations*
- d. Transportation cost of coal.*
- e. Suitability of particular coal source based on boiler design*

Based on the above considerations, the allocation of available coal and its utilisation will be prioritized to its stations in the order of their merit order position prevailing during the period.”

13 CAPEX Rolling Plan for the 5th Control Period

- 13.1.1.1 The Petitioner submits that as per MERC (Approval of Capital Investment Schemes) Regulations, 2022 (hereinafter referred as Capex Regulations 2022), the generating companies are required to submit Rolling Capital Investment plan from FY 2025-26 to FY 2029-30. In view of this, in the present Petition Rolling capital Investment Plan is being submitted and it is enclosed as Annexure - 31. The area of preparedness for flexible operation is at initial stage and shall require detail assessment as well as Capital investment in the area of C&I, Flexibility Retrofits, Efficiency retrofits, Simulators etc which are left open as technological details, cost estimate plant specific requirements are not available.
- 13.1.1.2 Furthermore, the FGD/SCR projects that are either currently being implemented or are planned to be undertaken in the next five years are also indicated in the capital expenditure projections.
- 13.1.1.3 As stated earlier, MSPGCL envisions carrying out Life Extension R&M activities for certain 210 MW units that have completed over 25 years of operation. In accordance with Regulation 43 of the MERC MYT Regulations, 2024, MSPGCL will submit CAPEX before the Hon'ble Commission for approval, supported by a Detailed Project Report (DPR) covering the project scope, justification, cost-benefit analysis, estimated life extension, financial package, expenditure phasing, and completion schedule, along with beneficiary consent (i.e., MSEDCL). However, as the detailed plans for these R&M activities are not yet finalized.
- 13.1.1.4 In line with Regulation 44 of the MERC MYT Regulations, 2024, generating companies may opt for a "Special Allowance" to cover expenses related to additional capital expenditure for thermal and hydro units that have completed their useful life. The Special Allowance provided under these regulations' maximum up to Rs. 10.75 Lakh/MW. As per Regulation 44.3 of the MERC MYT Regulations, 2024, the details of the work to be undertaken under the Special Allowance required to be submitted with the MYT petition. The tentative details of work to be undertaken against the special allowance for Hydro generating stations is enclosed as Annexure - 32.
- 13.1.1.5 The Petitioner further submits that for hydro units, a Special Allowance of Rs. 10.75 Lakh/MW/annum will be claimed for all five years for units that have already completed 35 years of operation. For units completing 35 years during the Control Period, the Special Allowance will be claimed on completion of 35 years of operation of such respective stations.
- 13.1.1.6 In case special allowance for thermal stations is allowed, the capitalisation against such thermal generating stations shall be reduced accordingly.
- 13.1.1.7 In view of above, the Petitioner request the Hon'ble Commission to approve the capital investment rolling plan for 5th MYT control period as submitted below.

Table 166: Consolidated Capital Investment rolling plan proposed for 5th Control Period (in Rs. Cr.)

Sr. No	Station	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	Total
1	Bhusawal U-3 (210 MW)	-	-	-	-	-	-
2	Bhusawal U-4 & 5 (2x 500 MW)	167.00	177.47	243.00	257.00	145.00	989.47
3	Chandrapur STPS U-3 to 7 (1920 MW)	1,754.78	1,334.63	790.00	579.16	211.00	4,669.57
4	Chandrapur STPS U-8 & 9(2x500 MW)	480.50	645.05	343.45	107.00	212.50	1,788.50
5	Khaperkheda TPS U-1 to 4 (4 x 210 MW)	270.00	1,074.00	775.00	214.92	180.80	2,514.72
6	Khaperkheda TPS U-5 (500 MW)	84.00	641.81	91.03	215.60	37.00	1,069.44
7	Koardi U-6 (210 MW)	154.00	89.00	38.00	19.00	64.00	364.00
8	Koradi TPS U-8 to 10 (3 x 660 MW)	1,376.54	1,114.00	655.00	219.95	122.86	3,488.35
9	Nashik TPS U-3 to 5 (3 x 210 MW)	327.38	244.70	89.24	9.10	0.50	670.93
10	Paras TPS U-3 & 4 (2 x 250 MW)	115.00	202.00	201.00	61.00	47.00	626.00
11	Parli TPS U-6 & 7 (2 x 250 MW)	320.00	479.00	141.00	512.00	73.00	1,525.00
12	Parli TPS U-8 (250 MW)	206.00	203.08	161.25	11.50	65.00	646.83
13	GTPS Uran (672 MW)	202.00	307.00	267.10	133.67	131.80	1,041.57
14	KGSC, Phophali (1956 MW)	33.00	131.50	77.50	56.00	55.43	353.43
15	SHPC Nashik	98.26	68.00	68.50	-	-	234.76
16	SHPC Pune	46.00	34.00	27.44	25.00	35.00	167.44
17	Total MSPGCL	5,634.46	6,745.24	3,968.51	2,420.90	1,380.89	20,150.00

13.1.1.8 Further, it is submitted that aforementioned capex rolling plan is excluding the capital expenditure towards emission control system and renovation and modernization of certain plants. The station wise amount of the same is tabulated below:

Station wise Capital expenditure towards Emission Control System for 5th Control Period (in Rs. Cr.)

Station	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
Bhusawal U-4 & 5 (2x 500 MW)	-	424.58	424.58	-	-	849.16
Chandrapur STPS U-3 to 7 (1920 MW)	128.16	-	1,196.57	-	-	1,324.73
Chandrapur STPS U-8 & 9(2x500 MW)	-	-	797.71	-	-	797.71
Khaperkheda TPS U-1 to 4 (4 x 210 MW)	129.13	-	-	-	-	129.13
Khaperkheda TPS U-5 (500 MW)	-	-	566.11	-	-	566.11
Koradi TPS U-8 to 10 (3 x 660 MW)	-	-	1,037.44	518.72	-	1,556.16
Paras TPS U-3 & 4 (2 x 250 MW)	475.59	-	-	-	-	475.59
Parli TPS U-6 & 7 (2 x 250 MW)	163.28	-	-	-	-	163.28
Parli TPS U-8 (250 MW)	108.86	-	-	-	-	108.86
Total FGD related capital expenditure	1,005.02	424.58	4,022.41	518.72	-	5,970.73

Station wise Capital expenditure towards Renovation and modernization for 5th Control Period (in Rs. Cr.)

Station	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total
Bhusawal U-3 (210 MW)	-	398.00	-	-	-	398.00
Chandrapur STPS U-3 to 7 (1920 MW)	-	293.00	-	300.00	-	593.00
Nashik TPS U-3 to 5 (3 x 210 MW)	384.04	796.10	-	-	-	1,180.14
Total FGD related capital expenditure	384.04	1,487.10	-	300.00	-	2,171.14

In view of above, summary of total capital expenditure including capex towards emission control system, R&M and spillover of schemes for 5th Control Period submitted in the format 4 are provided below:

Station wise total Capital expenditure proposed (Including FGD, R&M and spillover of schemes) for 5th Control Period (in Rs. Cr.)

Sr. No	Station	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Total	Spill Over of schemes approved already	Grand Total
1	Bhusawal U-3 (210 MW)	-	398.00	-	-	-	398.00	-	398.00
2	Bhusawal U-4 & 5 (2x 500 MW)	167.00	602.05	667.58	257.00	145.00	1,838.63	109.57	1,948.20
3	Chandrapur STPS U-3 to 7 (1920 MW)	1,882.94	1,627.63	1,986.57	879.16	211.00	6,587.30	727.17	7,314.47
4	Chandrapur STPS U-8 & 9(2x500 MW)	480.50	645.05	1,141.16	107.00	212.50	2,586.21	181.00	2,767.21
5	Khaperkheda TPS U-1 to 4 (4 x 210 MW)	399.13	1,074.00	775.00	214.92	180.80	2,643.85	289.07	2,932.92
6	Khaperkheda TPS U-5 (500 MW)	84.00	641.81	657.14	215.60	37.00	1,635.55	141.28	1,776.83
7	Koardi U-6 (210 MW)	154.00	89.00	38.00	19.00	64.00	364.00	-	364.00
8	Koradi TPS U-8 to 10 (3 x 660 MW)	1,376.54	1,114.00	1,692.44	738.67	122.86	5,044.51	412.07	5,456.58
9	Nashik TPS U-3 to 5 (3 x 210 MW)	711.42	1,040.80	89.24	9.10	0.50	1,851.07	24.27	1,875.34
10	Paras TPS U-3 & 4 (2 x 250 MW)	590.59	202.00	201.00	61.00	47.00	1,101.59	90.41	1,192.00
11	Parli TPS U-6 & 7 (2 x 250 MW)	483.28	479.00	141.00	512.00	73.00	1,688.28	121.10	1,809.38
12	Parli TPS U-8 (250 MW)	314.86	203.08	161.25	11.50	65.00	755.69	1.45	757.14
13	GTPS Uran (672 MW)	202.00	307.00	267.10	133.67	131.80	1,041.57	86.88	1,128.45
14	KGSC, Phophali (1956 MW)	33.00	131.50	77.50	56.00	55.43	353.43	65.51	418.94
15	SHPC Nashik	98.26	68.00	68.50	-	-	234.76	-	234.76
16	SHPC Pune	46.00	34.00	27.44	25.00	35.00	167.44	55.00	222.44
17	Total FGD related capital expenditure	7,023.52	8,656.92	7,990.92	3,239.62	1,380.89	28,291.87	2,304.78	30,596.65

13.1.1.9 As per the Regulation 7.4 of Capex Regulations 2022, for the first three years of every five-year period shall be concrete plan and no changes shall be made in the same to the extent of new schemes. Hence, the Petitioner has covered the schemes planned for the five years control period. However, the Petitioner most respectfully submits that the aforesaid figures of capitalisation projected for five years period are comparatively higher in view of historical year on year (y-o-y) actual capitalisation trend. In view of this, considering that capex rolling plan numbers are on higher side, in order to avoid the impact on the tariff of MSPGCL's station and ultimately impact on the consumers tariff, the Petitioner has considered more optimistic capitalisation for the tariff purpose for the MYT control period. The capitalisation projected for the control period is discussed in detail in subsequent chapter of Capitalisation for MYT control period.

14 Multi Year Tariff for the Control Period FY 2025-26 to FY 2029-30

In this section, the ARR for the 5th Control Period, from FY 2025-26 to FY 2029-30, is computed based on MERC Tariff Regulations 2024.

14.1 Operating Capacity during the control period

- 14.1.1.1 The Petitioner respectfully submits that there is no anticipated change in the operating capacity of the existing stations in the control period. The CEA has requested the Petitioner to maintain operation of all currently available thermal capacities until 2030 and beyond. Furthermore, the CEA has suggested that the Petitioner shall consider the Renovation and Modernization of thermal units to extend their operational life and enhance efficiency. This recommendation is made in light of the potential need for power from these units till the year 2030 and beyond. As per the request, the Petitioner is currently evaluating the continued service of all existing capacities until March 2030.
- 14.1.1.2 The Petitioner submits that for thermal stations, the projections are based on the Fuel Utilization Plan, taking into account the availability of fuel and the planned outages to meet target availability and PLF.
- 14.1.1.3 The Petitioner further submits that for hydro stations, it is anticipated that the units will consistently achieve at least the Design Energy, as no significant constraints are expected. This assumption holds true for the majority of hydro units, allowing them to meet the generation targets effectively.

14.2 Operational norms for 5th MYT Control period

- 14.2.1.1 The Petitioner has envisaged normative performance for all the stations expect for the following cases:
 - **SHR for Koradi 6 –**
Regulation 47.5 of the MERC (MYT) Regulations 2024 prescribes a SHR of 2622 kCal/kWh for Koradi Unit 6. However, the Petitioner submits that the SHR approved under the previous regulations accounted for both Koradi Units 6 and 7. Given that Koradi Unit 6 continues to operate following the retirement of Unit 7, the Petitioner has not considered the higher SHR of 2622 for the MYT projections.
The guaranteed SHR for the unit is 2350 kCal/kWh which has been approved by the Hon'ble Commission. The Petitioner submits that even for the new generating stations, an allowance of 4.5% from the design SHR is allowed in order to factor local operating conditions and deviations in overall quality of coal and associated parameters. Accordingly, it is requested that the normative SHR may kindly be considered as $2350 \times 1.045 = 2456$ kCal/kWh.
 - **Auxiliary Consumption** - As mentioned in the earlier sections of the petition, the Petitioner respectfully submits before the Hon'ble Commission to consider and approve the Auxiliary consumption norms as recommended in the CPRI Energy Audit reports for Chandrapur Units 3-7, Paras Units 3-4, Parli Units 6,7 & 8, Khaperkheda Units 1 to 4.

- **Target Availability** – Similarly, for the target availability of Khaperkheda Units 1 to 4, the Petitioner requests the Hon’ble Commission to consider and approve as recommended in the CPRI Energy Audit reports. Additionally, for the Nashik and Bhusawal Units, the Petitioner requests the Hon’ble Commission to approve the target availability based on the historical data.

14.2.1.2 The Petitioner submits that for the purpose of working out the energy charges, normative parameters or norms as recommended as per CPRI reports have been considered. However, it is requested that the Hon’ble Commission may kindly consider the submission made by the Petitioner and allow such relaxation in the performance parameters of these stations.

14.2.1.3 The Petitioner further submits that the auxiliary energy consumption of the Emission Control System (ECS) has been duly incorporated while projecting the auxiliary energy consumption for the period from FY 2025-26 to FY 2029-30.

14.2.1.4 The Petitioner has considered the following operational norms for the control period:

Table 167: Operational Parameters for the control period FY 2025-26 to FY 2029-30

Station	AVF %	PLF %	Aux Cons. %	SFOC (ml/kWh)	SHR (kCal/kWh)
Bhusawal Unit 3	80%	80%	10.96%	1.40	2,787
Chandrapur Units 3 -7	85%	80%	9.38%	1.00	2,688
Khaperkheda Units 1-4	75%	75%	10.41%	1.20	2,630
Koradi Unit 6	75%	75%	11.01%	2.81	2,456
Nashik Units 3-5	80%	80%	10.75%	1.00	2,754
Uran	41%	41%	3.10%	0.50	2,035
Paras Units 3-4	85%	85%	11.45%	0.50	2,415
Parli Units 6-7	85%	85%	10.45%	0.50	2,415
Khaperkheda Unit 5	85%	85%	6.00%	0.50	2,375
Bhusawal Units 4-5	85%	85%	6.00%	0.50	2,375
Koradi Units 8-10	85%	85%	6.00%	0.50	2,230
Chandrapur Units 8-9	85%	85%	6.00%	0.50	2,375
Parli Unit 8	85%	85%	9.34%	0.50	2,415

14.2.1.5 The Petitioner submits that the performance parameters have been proposed taking into account the annual overhauls, other planned/forced outages, likely fuel realization in the stations. Details of proposed overhauls of the stations have been provided in the prescribed forms. Details of the Fuel supply position has been provided in the earlier section of this petition, as well as in FUP submitted by Petitioner.

14.2.1.6 The Petitioner submits that the consideration of normative PLF leads to higher projection of generation from the stations. The Petitioner further submits that in case the supply of coal is realized as per projections, the stations will achieve normative generation. It is also to be appreciated that MSPGCL stations have been under severe backing down/RSD as per directions given by SLDC on which MSPGCL has no control. The quantum of loss of generation have already shared in the truing up section of the petition. Therefore, in case the stations will fall

under the merit order dispatch, the generation profile as per norms would materialize.

14.2.2 Availability of Uran gas-based station

14.2.2.1 The Petitioner submits that the units of Uran remain available (machine availability being more than 85%), however in order to operate the plant, the domestic gas supplied is barely available. In case a higher generation is required from the station, the Petitioner submits that it can enter into arrangements with the gas supplier to supply RLNG, however the generating cost based on such RLNG would be significantly higher.

14.2.2.2 The Petitioner has projected the availability of the station based on average gas availability of 1.77 MMSCMD based on the gas receipts in the last years and six months of FY 2024-25. Details of gas availability have been provided in the section on Fuel Utilisation. It is further to submit that in anticipation of availability of WHR A0 block from Dec'2024 onwards, after completion of restoration works currently undertaken, the complete utilisation of available gas is envisaged in combined cycle only.

14.2.3 Net Generation:

14.2.3.1 In view of above normative operational parameters, station wise net generation projected for the 5th MYT Control period as shown below:

Net generation for 5th MYT Control period – FY 2025-26 to FY 2029-30

Stations	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	1,310.85	1,310.80	1,310.80	1,310.80	1,310.80
Chandrapur Units 3 -7	12,193.62	12,193.03	12,037.55	12,036.68	12,037.29
Khaperkheda Units 1-4	4,946.68	4,946.94	4,946.94	4,947.11	4,947.11
Koradi Unit 6	1,227.74	1,227.71	1,227.71	1,227.71	1,227.71
Nashik Units 3-5	3,941.18	3,941.18	3,941.28	3,941.08	3,940.98
Uran	2,332.55	2,332.55	2,338.94	2,332.55	2,332.55
Paras Units 3-4	3,296.59	3,296.86	3,296.63	3,296.63	3,296.74
Parli Units 6-7	3,333.86	3,333.98	3,333.98	3,334.10	3,333.86
Khaperkheda Unit 5	3,499.60	3,499.48	3,454.80	3,454.80	3,454.80
Bhusawal Units 4-5	6,998.84	6,998.97	6,909.63	6,909.75	6,909.75
Koradi Units 8-10	13,857.83	13,858.27	13,681.24	13,681.68	13,681.63
Chandrapur Units 8-9	6,999.52	6,999.07	6,909.85	6,909.70	6,910.17
Parli Unit 8	1,687.56	1,687.56	1,687.63	1,687.63	1,687.63
Total	65,626.43	65,626.40	65,076.98	65,070.22	65,071.03

14.3 Projection of Energy Charges

14.3.1 Price and GCV of Fuel

14.3.1.1 As already elaborated in the Chapter on Fuel Utilisation, the Petitioner has considered escalation of 5% for Raw and washed coal on wtd. average prices of coal for the period from Oct 2023 to Sep 2024. Further, it is submitted that wtd. Average rate of imported coal for the period from Oct 2023 to Sep 2024 without escalation have been considered for projection of fuel cost for MYT period. Regulation 51.6 of the MERC (MYT) Regulations, 2024 specifies that the landed cost of primary fuel and secondary fuel for tariff determination shall be based on actual weighted average cost of primary fuel and secondary fuel of the three preceding months.

“.....

Provided that the landed cost of primary fuel and secondary fuel for tariff determination shall be based on actual weighted average cost of primary fuel and secondary fuel of the three preceding months, and in the absence of landed costs for the three preceding months, latest procurement price of primary fuel and secondary fuel for the generating Station, preceding the first month for which the Tariff is to be determined for existing stations, and immediately preceding three months in case of new generating stations shall be taken into account:

.....”

14.3.1.2 The Petitioner most respectfully submits that consideration of preceding 3 months for the projection of price and GCV of coal would not provide true reflection of GCV and price of coal, being monsoon months. Hence, last 12 months details (ending Sep-24) have been considered for the projection.

14.3.1.3 The average GCV and prices considered by MSPGCL is provided in the table below:

Table 168: Unit fuel prices for the FY 2025-26

Station	Domestic		Imported		Washed		GP II		FO	LDO
	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price Rs.KI	Price Rs.KI
Bhusawal Unit 3	5,167	3,139	-	-	-	-	-	-	56,227	81,997
Chandrapur Units 3-7	4,500	3,300	11,937	4,681	4,442	3,619	-	-	54,675	86,181
Khaperkheda Units 1-4	3,471	3,236	13,427	4,686	4,417	3,266	-	-	72,098	78,388
Koradi Unit 6	3,048	3,285	12,397	4,652	-	-	-	-	57,030	81,922
Nashik Units 3-5	4,997	3,165	11,702	4,665	-	-	-	-	59,890	65,175
Uran	22	8,020	-	-	-	-	-	-	-	-
Paras Units 3-4	4,735	3,338	-	-	-	-	-	-	55,876	84,742
Parli Units 6-7	6,694	3,203	-	-	-	-	-	-	57,143	78,122
Khaperkheda Unit 5	3,452	3,238	13,868	4,684	4,499	3,274	-	-	56,418	79,615
Bhusawal Units 4-5	5,116	3,167	12,302	4,753	4,814	3,547	-	-	54,675	86,181
Koradi Units 8-10	4,980	3,181	12,386	4,652	5,187	3,623	4,129	3,350	57,704	64,822
Chandrapur Units 8-9	4,417	3,294	12,038	4,682	4,627	3,598	4,506	3,350	56,489	81,385
Parli Unit 8	6,710	3,208	-	-	-	-	5,129	3,350	71,961	78,388

Table 169: Unit fuel prices for the FY 2026-27

Station	Domestic		Imported		Washed		GP II		FO	LDO
	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price Rs./Kl	Price Rs./Kl
Bhusawal Unit 3	5,426	3,139	-	-	-	-	-	-	59,038	86,096
Chandrapur Units 3 -7	4,725	3,300	12,534	4,681	4,665	3,619	-	-	57,409	90,490
Khaperkheda Units 1-4	3,645	3,236	14,098	4,686	4,637	3,266	-	-	75,703	82,307
Koradi Unit 6	3,200	3,285	13,017	4,652	-	-	-	-	59,881	86,018
Nashik Units 3-5	5,247	3,165	12,287	4,665	-	-	-	-	62,884	68,433
Uran	22	8,020	-	-	-	-	-	-	-	-
Paras Units 3-4	4,971	3,338	-	-	-	-	-	-	58,669	88,980
Parli Units 6-7	7,029	3,203	-	-	-	-	-	-	60,000	82,028
Khaperkheda Unit 5	3,624	3,238	14,561	4,684	4,724	3,274	-	-	59,239	83,596
Bhusawal Units 4-5	5,372	3,167	12,917	4,753	5,054	3,547	-	-	57,409	90,490
Koradi Units 8-10	5,320	3,181	13,005	4,652	5,447	3,623	4,193	3,350	60,589	68,063
Chandrapur Units 8-9	4,634	3,294	12,640	4,682	4,858	3,598	4,589	3,350	59,313	85,454
Parli Unit 8	7,045	3,208	-	-	-	-	5,243	3,350	75,559	82,307

Table 170: Unit fuel prices for the FY 2027-28

Station	Domestic		Imported		Washed		GP II		FO	LDO
	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price Rs./Kl	Price Rs./Kl
Bhusawal Unit 3	5,697	3,139	-	-	-	-	-	-	61,990	90,401
Chandrapur Units 3 -7	4,961	3,300	13,161	4,681	4,898	3,619	-	-	60,279	95,014
Khaperkheda Units 1-4	3,827	3,236	14,803	4,686	4,869	3,266	-	-	79,488	86,423
Koradi Unit 6	3,360	3,285	13,668	4,652	-	-	-	-	62,876	90,319
Nashik Units 3-5	5,509	3,165	12,901	4,665	-	-	-	-	66,029	71,855
Uran	22	8,020	-	-	-	-	-	-	-	-
Paras Units 3-4	5,220	3,338	-	-	-	-	-	-	61,603	93,429
Parli Units 6-7	7,381	3,203	-	-	-	-	-	-	63,000	86,130
Khaperkheda Unit 5	3,806	3,238	15,289	4,684	4,960	3,274	-	-	62,201	87,776
Bhusawal Units 4-5	5,640	3,167	13,563	4,753	5,307	3,547	-	-	60,279	95,014
Koradi Units 8-10	5,586	3,181	13,655	4,652	5,735	3,623	4,261	3,350	63,618	71,467
Chandrapur Units 8-9	4,890	3,294	13,272	4,682	5,101	3,598	4,677	3,350	62,279	89,727
Parli Unit 8	7,397	3,208	-	-	-	-	5,364	3,350	79,337	86,423

Table 171: Unit fuel prices for the FY 2028-29

Station	Domestic		Imported		Washed		GP II		FO	LDO
	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price Rs./Kl	Price Rs./Kl
Bhusawal Unit 3	5,982	3,139	-	-	-	-	-	-	65,090	94,921
Chandrapur Units 3 -7	5,190	3,300	13,819	4,681	5,143	3,619	-	-	63,293	99,765
Khaperkheda Units 1-4	4,018	3,236	15,543	4,686	5,113	3,266	-	-	83,462	90,744
Koradi Unit 6	3,956	3,285	14,352	4,652	-	-	-	-	66,019	94,835
Nashik Units 3-5	5,784	3,165	13,546	4,665	-	-	-	-	69,330	75,448
Uran	22	8,020	-	-	-	-	-	-	-	-
Paras Units 3-4	5,481	3,338	-	-	-	-	-	-	64,683	98,100
Parli Units 6-7	7,750	3,203	-	-	-	-	-	-	66,150	90,436
Khaperkheda Unit 5	3,996	3,238	16,054	4,684	5,208	3,274	-	-	65,311	92,165
Bhusawal Units 4-5	5,922	3,167	14,241	4,753	5,572	3,547	-	-	63,293	99,765
Koradi Units 8-10	5,979	3,181	14,338	4,652	5,943	3,623	4,332	3,350	66,799	75,040
Chandrapur Units 8-9	4,893	3,294	-	-	5,356	3,598	4,769	3,350	65,393	94,213
Parli Unit 8	7,767	3,208	-	-	-	-	5,490	3,350	83,304	90,744

Table 172: Unit fuel prices for the FY 2029-30

Station	Domestic		Imported		Washed		GP II		FO	LDO
	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price/MT	GCV kCal/kg	Price Rs./Kl	Price Rs./Kl
Bhusawal Unit 3	6,281	3,139	-	-	-	-	-	-	68,344	99,667
Chandrapur Units 3 -7	5,450	3,300	14,510	4,681	5,400	3,619	-	-	66,458	1,04,753
Khaperkheda Units 1-4	4,219	3,236	16,320	4,686	5,368	3,266	-	-	87,635	95,281
Koradi Unit 6	4,153	3,285	15,069	4,652	-	-	-	-	69,320	99,576
Nashik Units 3-5	6,074	3,165	14,224	4,665	-	-	-	-	72,796	79,220
Uran	22	8,020	-	-	-	-	-	-	-	-
Paras Units 3-4	5,755	3,338	-	-	-	-	-	-	67,917	1,03,005
Parli Units 6-7	8,137	3,203	-	-	-	-	-	-	69,458	94,958
Khaperkheda Unit 5	4,196	3,238	16,857	4,684	5,469	3,274	-	-	68,577	96,773
Bhusawal Units 4-5	6,219	3,167	14,953	4,753	5,851	3,547	-	-	66,458	1,04,753
Koradi Units 8-10	-	-	15,055	4,652	6,050	3,623	4,407	3,350	70,139	78,792
Chandrapur Units 8-9	5,241	3,294	-	-	5,624	3,598	4,865	3,350	68,663	98,924
Parli Unit 8	8,155	3,208	-	-	-	-	5,622	3,350	87,469	95,281

14.3.1.4 The Petitioner respectfully submits that the projected fuel expenses and Energy Charge Rates have been computed based on the projected generation and corresponding fuel parameters, including the landed price and GCV, as per the Fuel Utilisation Plan as detailed out in foregoing chapter of this Petition. The

performance parameters, such as Station Heat Rate, Specific Oil Consumption, transit loss, GCV gap, and stack loss, have been considered at normative levels.

Table 173: Projected Fuel expenses (excluding reagent cost) for the MYT Period (Rs. Crore)

Station	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Bhusawal Unit 3	704	739	776	815	856
Chandrapur Units 3 -7	5,460	5,733	6,019	6,293	6,608
Khaperkheda Units 1-4	1,928	2,024	2,126	2,202	2,313
Koradi Unit 6	406	427	448	510	536
Nashik Units 3-5	2,170	2,278	2,392	2,511	2,637
Uran	1,220	1,220	1,224	1,220	1,220
Paras Units 3-4	1,317	1,383	1,452	1,525	1,601
Parli Units 6-7	1,938	2,035	2,137	2,244	2,356
Khaperkheda Unit 5	1,239	1,301	1,366	1,435	1,506
Bhusawal Units 4-5	3,071	3,224	3,386	3,555	3,733
Koradi Units 8-10	4,893	5,091	5,303	5,276	5,112
Chandrapur Units 8-9	2,704	2,825	2,935	2,652	2,701
Parli Unit 8	971	1,019	1,047	1,098	1,151
Total	28,021	29,301	30,610	31,336	32,330

Table 174: Projected Energy charges for MYT Period (excluding reagent cost) (Rs/kWh)

Station	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	5.37	5.64	5.92	6.22	6.53
Chandrapur Units 3 -7	4.48	4.70	4.93	5.16	5.42
Khaperkheda Units 1-4	3.89	4.08	4.29	4.44	4.66
Koradi Unit 6	3.30	3.47	3.64	4.15	4.35
Nashik Units 3-5	5.50	5.78	6.07	6.37	6.69
Uran	5.23	5.23	5.23	5.23	5.23
Paras Units 3-4	3.94	4.14	4.35	4.56	4.79
Parli Units 6-7	5.80	6.09	6.39	6.71	7.05
Khaperkheda Unit 5	3.54	3.72	3.90	4.10	4.30
Bhusawal Units 4-5	4.39	4.61	4.84	5.08	5.33
Koradi Units 8-10	3.53	3.67	3.83	3.81	3.69
Chandrapur Units 8-9	3.86	4.04	4.19	3.79	3.86
Parli Unit 8	5.74	6.03	6.19	6.49	6.81

14.3.1.5 Additionally, the costs associated with the reagents for Flue Gas Desulphurization (FGD) and Selective Catalytic Reduction (SCR) systems, which are anticipated to be commissioned during FY 2025-26 to FY 2029-30, have been factored in. The Petitioner requests the Hon'ble Commission to kindly consider these projections in determining the applicable tariffs.

Table 175: Projected Fuel expenses (Including reagent cost) for the MYT Period (Rs. Crore)

Stations	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	704.29	739.47	776.45	815.27	856.03
Chandrapur Units 3 -7	5,615.42	5,919.34	6,240.68	6,548.51	6,863.62
Khaperkheda Units 1-4	2,248.67	2,374.42	2,475.64	2,552.48	2,662.60
Koradi Unit 6	493.65	513.95	535.28	597.53	623.03
Nashik Units 3-5	2,169.52	2,278.00	2,391.95	2,511.43	2,636.94
Uran	1,220.41	1,220.41	1,223.76	1,220.41	1,220.41
Paras Units 3-4	1,334.63	1,409.46	1,478.50	1,551.10	1,627.39
Parli Units 6-7	2,115.14	2,270.95	2,372.70	2,479.62	2,591.62
Khaperkheda Unit 5	1,239.38	1,301.31	1,388.26	1,456.57	1,528.31
Bhusawal Units 4-5	3,070.83	3,224.43	3,424.14	3,598.96	3,776.71
Koradi Units 8-10	4,892.52	5,097.36	5,372.83	5,353.84	5,191.24
Chandrapur Units 8-9	2,703.85	2,825.26	2,956.39	2,681.40	2,730.73
Parli Unit 8	1,059.32	1,137.27	1,164.63	1,215.54	1,269.00
Total	28,867.62	30,311.64	31,801.19	32,582.66	33,577.62

Table 176: Projected Energy charges for MYT Period (including reagent cost) (Rs/kWh)

Station	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	5.37	5.64	5.92	6.22	6.53
Chandrapur Units 3 -7	4.61	4.85	5.18	5.44	5.70
Khaperkheda Units 1-4	4.55	4.80	5.00	5.16	5.38
Koradi Unit 6	4.02	4.19	4.36	4.87	5.07
Nashik Units 3-5	5.50	5.78	6.07	6.37	6.69
Uran	5.23	5.23	5.23	5.23	5.23
Paras Units 3-4	4.05	4.28	4.48	4.71	4.94
Parli Units 6-7	6.34	6.81	7.12	7.44	7.77
Khaperkheda Unit 5	3.54	3.72	4.02	4.22	4.42
Bhusawal Units 4-5	4.39	4.61	4.96	5.21	5.47
Koradi Units 8-10	3.53	3.68	3.93	3.91	3.79
Chandrapur Units 8-9	3.86	4.04	4.28	3.88	3.95
Parli Unit 8	6.28	6.74	6.90	7.20	7.52

14.3.1.6 In view of above, station wise per unit impact of reagent cost for the MYT period is as shown below:

Table 177: Projected Per unit charges on account of reagent cost for MYT Period (Rs/kWh)

Station	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	-	-	-	-	-
Chandrapur Units 3 -7	0.13	0.16	0.25	0.28	0.29
Khaperkheda Units 1-4	0.66	0.72	0.72	0.72	0.72
Koradi Unit 6	0.72	0.72	0.72	0.72	0.72
Nashik Units 3-5	-	-	-	-	-
Uran	-	-	-	-	-
Paras Units 3-4	0.11	0.14	0.14	0.14	0.15
Parli Units 6-7	0.54	0.72	0.72	0.72	0.72
Khaperkheda Unit 5	-	-	0.11	0.12	0.12
Bhusawal Units 4-5	-	-	0.12	0.13	0.13
Koradi Units 8-10	-	0.00	0.10	0.11	0.11
Chandrapur Units 8-9	-	-	0.09	0.09	0.09
Parli Unit 8	0.54	0.71	0.71	0.71	0.71

14.4 Projection of Annual Fixed Charges:

14.4.1 Capitalization Plan:

14.4.1.1 While the relevant details of the capital expenditure and the capitalization schedule have been provided in Form 4, the summary of station wise proposed capitalization including installation of emission control system and capitalisation towards Renovation and modernisation is provided below. It is submitted that the capitalisation plan has been derived from Capex rolling by apportioning the projected amount.

Table 178: Station-wise proposed capitalization for the control period (Rs. Crore)

Sr. No.	Station	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30	Total - 5 yrs
1	Bhusawal Unit 3	-	99.50	-	-	-	99.50
2	Chandrapur Units 3 -7	736.00	658.44	394.91	586.11	211.02	2,586.48
3	Khaperkheda Units 1-4	220.80	275.72	388.75	143.28	180.80	1,209.34
4	Koradi Unit 6	51.35	22.20	18.85	12.51	64.20	169.10
5	Nashik Units 3-5	245.22	260.18	44.62	6.07	0.50	556.58
6	Uran	86.58	84.06	133.55	89.11	131.80	525.11
7	Paras Units 3-4	214.61	53.10	104.91	46.83	55.25	474.69
8	Parli Units 6-7	189.66	119.75	82.95	341.74	73.08	807.18
9	Khaperkheda Unit 5	182.92	176.79	45.73	143.73	37.00	586.18
10	Bhusawal Units 4-5	58.91	277.23	121.96	171.33	145.00	774.43
11	Koradi Units 8-10	576.66	505.50	327.39	147.22	122.86	1,679.63
12	Chandrapur Units 8-9	175.71	299.53	179.65	71.33	212.50	938.72
13	Parli Unit 8	103.09	50.84	80.77	7.86	65.29	307.86
14	SHP	43.92	25.29	46.97	27.73	35.00	178.91
15	Bhira	2.25	-	1.00	11.11	-	14.35
16	Koyna	32.80	32.65	38.75	37.33	55.43	196.96
17	Tillari	7.34	-	-	5.55	-	12.90
	Total	2,927.82	2,940.76	2,010.74	1,848.86	1,389.73	11,117.92

14.4.1.2 The Petitioner has been submitting the DPRs for various schemes and the Hon'ble Commission has accorded approval to such proposed expenses in the past. For the proposed expenditure, MSPGCL shall be submitting the DPRs in due course of time. It is also submitted that the proposed capital expenditure is inclusive of installation of FGD system.

14.4.1.3 The Petitioner submits that the impact of the FGD installations on the plant performance parameters on the auxiliary consumption and on the variable costs on account of consumption of chemical/reagents etc., as well as on the O&M costs, have been considered in line with MERC (MYT) Regulations 2024. The plant wise projected date of commissioning FGD is provided below,

Table 179: Projected date of Commissioning - FGD

Stations	Projected date of Commissioning-FGD (CoD considered as last day of the month)
Khaperkheda 3-4	Sep-24
Koradi 6	Nov-24
Parli 6 & 7; Parli 8	June-25
Chandrapur 3-4	May-25
Khaperkheda 1-2	May-25
Paras 3 & 4	Jul-25

Stations	Projected date of Commissioning-FGD (CoD considered as last day of the month)
Khaperkheda 5	Mar-27
Bhusawal 4	Mar-27
Koradi 8	Dec-26
Koradi 9	Mar-27
Bhusawal 5	Jun-27
Chandrapur 8 & 9	Jun-27
Koradi 10	Jun-27
Chandrapur 5,6 &7	Oct-27

Projected expense due to flexible operation of coal fired generating units

- 14.4.1.4 The Petitioner respectfully submits that, as per the CEA Regulations on “Flexible Operation of Coal-Based Thermal Power Generating Units, 2022”, notified on 25.01.2023, coal-fired generating units are required to achieve a technical minimum power level of 40%, in accordance with the phasing plan specified by the CEA from time to time.
- 14.4.1.5 In compliance with the aforementioned regulation, the CEA, in February 2023, issued a report titled 'Flexibilization of Coal-Fired Power Plants - A Roadmap for Achieving 40% Technical Minimum Load,' which outlines the preliminary phasing of coal-fired units, predominantly from central generating stations. The report proposes that the flexibilization scheme will be implemented in four phases, based on the commissioning dates of the units.
- 14.4.1.6 Petitioner submits that the CEA report provides a detailed outline of the necessary technical conditions and qualifications required for operation under the flexibilization scheme. In light of this, the Petitioner submits that MSPGCL's units must undergo retrofitting to ensure compliance and enable operation in accordance with the CEA's prescribed norms. MSPGCL has already enumerated the challenges vide para 11.1.1.15 to 11.1.1.17 however to start with the initial plant-wise estimated expenses in boiler area (header, coal burner) BFP re-circulation valve & control panel that will be incurred for this retrofitting exercise are provided below for the Hon'ble Commission's kind consideration and approval.

Table 180: Projected estimated expenses for Flexible Operations of Units

S. No.	Station	Projected expenses for Flexible Operations of Units (Rs. Cr.)					Total
		FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	
1	Bhusawal U-4 & 5 (2x 500 MW)	50.00	-	-	-	-	50.00
2	Chandrapur STPS U-3 to 7 (1920 MW)	25.00	-	40.00	-	-	65.00
3	Chandrapur STPS U-8 & 9(2x500 MW)	34.00	-	-	-	-	34.00
4	Khaperkheda TPS U-1 to 4 (4 x 210 MW)	15.00	75.00	-	-	-	90.00

S. No.	Station	Projected expenses for Flexible Operations of Units (Rs. Cr.)					
		FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	Total
5	Khaperkheda TPS U-5 (500 MW)	25.00	2.00	-	-	-	27.00
6	Koradi TPS U-8 to 10 (3 x 660 MW)	35.00	-	-	-	-	35.00
7	Parli TPS U-6 & 7 (2 x 250 MW)	-	-	-	28.00	-	28.00
	Total						329.00

14.4.1.7 The Petitioner requests the Hon'ble Commission to consider the submission and approve the capitalization proposed in this petition.

14.4.2 O&M Expenses

14.4.2.1 Petitioner submits that the O&M costs for the MYT period are projected as per the norms approved in the MERC MYT Regulations, 2024.

14.4.2.2 The details of normative O&M expenses considered for the 5th MYT Control period are as follows:

O&M Expenses for old units:

14.4.2.3 The O&M expenses for old units (Units that achieved COD before 26th August, 2005) are projected based on Regulation 48.1 of the MERC (MYT) Regulations, 2024. Regulations 48.1 of the MERC (MYT) Regulations, 2024, prescribes as follows:

"48 Operation and maintenance expenses for Thermal Generating Stations

48.1 Generating Stations/Units that achieved COD before August 26, 2005

a) The Operation and Maintenance expenses for Generating Stations which achieved COD before the date of coming into effect of the MERC (Terms and Conditions of Tariff) Regulations, 2005, shall be computed in accordance with this Regulation.

b) The Operation and Maintenance expenses excluding water charges and including insurance shall be derived on the basis of the average of the Trued-up Operation and Maintenance expenses after adding/deducting the share of efficiency gains/losses, for the five Years ending March 31, 2024, excluding abnormal Operation and Maintenance expenses, if any, subject to prudence check by the Commission:

Provided that, the impact of the wage revision if any during the Trued-up year shall be included in the O&M expenses while determining the norms for the O&M expenses for the future year.

c) The Operation and Maintenance expenses for each subsequent year shall be determined by escalating these Base Year expenses of FY 2024-25 by an inflation factor with 50% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years as per the Office of Economic Advisor of Government of India and 50% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five financial years as per the Labour Bureau, Government of India, as reduced by an efficiency factor of 1% of Average escalation factor or as may be stipulated by the Commission from time to time, to arrive at the permissible Operation and Maintenance expenses for each year of the Control Period:"

- 14.4.2.4 The Petitioner submits that on an annual basis, there has been a significant disallowance in the O & M expenses. In case the approved expenses are considered as a base, the same will always lead to a disallowance in the ensuing years. Being a government company, all the expenses incurred by the Petitioner are in a transparent manner and is subject to stringent audit checks. Further, such O & M expenses include the expenses towards repair and maintenance of old units which is to be done irrespective of the quantum of O & M expenses approved by the Hon'ble Commission.
- 14.4.2.5 The Petitioner submits that the approval of O & M expenses takes into account the inflation indices as per regulations. An average escalation in such indices may/may not be able to map the actual movement of such expenses. For instance, the WPI index showed a dip of -0.7% from FY 2023 to FY 2024 whereas no such reduction in O & M expenses could be seen in actual terms. Therefore, restricting the O & M expenses to historically approved limits will be detrimental to the financial health of the Petitioner. Accordingly, the Petitioner requests the Hon'ble Commission to invoke its Power to Relax as provided in the regulations and approve the following submissions of MSPGCL:
- a. Actual O & M expenses (excluding provisions) may be considered for working out the normative expenses for ensuing years or the same may at least be considered at the time of truing up.
 - b. Efficiency improvement factor of 1% may be applied at the time of true-up in case actual O & M expenses are lower than the normative expenses
- 14.4.2.6 Petitioner submits that for the projection of O&M expenses for MYT period, based on escalation rate of 4.36% arrived as per WPI and CPI indices numbers for FY 2023-24 has been considered for the projection O&M expenses

O&M expense for new units:

14.4.2.7 MSPGCL submits that the O&M expenses has been considered on Rs. Lakhs/MW basis as per Regulation 48.2 of MERC MYT Regulations 2024.

Expenses related to Housing Colonies:

14.4.2.8 Regulation 50.1 (c) of MERC (MYT) Regulations 2024 provides that O&M expense incurred by Hydro generating stations on its housing colonies and related expenses, including medical and other facilities and on their operating staff shall be allowed separately. The relevant excerpt of the said regulation is reproduced as below:

“50 Operation and Maintenance Expenses for Hydro Generating Stations

50.1 For Existing Stations:

.....

c) The Operation and Maintenance expenses incurred by the Generating Company on its housing colonies and related expenses, including medical and other facilities, and on their operating staff shall be excluded from (a) and (b) above and allowed separately, subject to prudence check.”

14.4.2.9 In view of aforesaid regulations, the O&M expenses expected to be incurred by Hydro generating stations on its housing colonies and related expenses for FY 2025-26 to FY 2029-30 are tabulated below for the kind consideration of the Hon’ble Commission:

Table 181:O&M expense on housing colonies and related expenses of Hydro stations for 5th Control Period (Rs Crore)

Sr. No.	Station	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
1	Koyna	1.19	1.24	1.30	1.35	1.41
2	Bhira	0.06	0.06	0.07	0.07	0.07
3	Tillari	0.05	0.06	0.06	0.06	0.06
4	SHP	1.49	1.55	1.62	1.69	1.77
	Total	2.79	2.92	3.04	3.17	3.31

14.4.2.10Petitioner respectfully submits that for the projection of housing colony expense, base value of the housing colony expense has been calculated by taking the average of the actual expenses incurred during FY 2022-23 and FY 2023-24, along with the estimated value for FY 2024-25. For FY 2025-26, the base value has been escalated using an escalation factor of 4.36%. Similarly, for the subsequent years within the Control Period, the same escalation factor is applied to compute the housing colony expenses.

Water Charges:

14.4.2.11The Petitioner submits that, as per the MYT Regulations, 2024, water charges are allowed at actuals over and above the normative O&M costs. In accordance

with this provision, the Petitioner has projected the water charges for the upcoming period based on actual water charges data of the past three years, inputs from power stations regarding projected water usage and applicable water charges, as well as the estimated water costs for proposed water arrangements at Koradi, Paras, Khaperkheda, and Bhusawal TPS for TTRO water supply from STP.

Other Fuel related Charges

14.4.2.12 The Petitioner respectfully submits that the fixed costs associated with fuel handling within the plant premises have been duly approved by the Hon'ble Commission as part of the Operation and Maintenance (O&M) costs as per actuals. In line with this approval, the Petitioner has also considered the projections of 'Other Fuel Related (fixed) Charges' for MYT control period as per actuals for FY 2023-24.

Impact of wage revision

14.4.2.13 The Petitioner vide circular No. 464/10720 and 465/10721 dated 14.10.2024 has announced wage revision w.e.f. 01.04.2024 for contractual staff. The Petitioner is in process of assessing the impact of pay revision station wise. It is submitted that tentative impact of wage revision for FY 2024-25 worked out to ~ Rs.78.06 Crore. Accordingly, the Petitioner has projected the impact of wage revision for MYT control period with y-o-y escalation rate of 4.36% The Petitioner most respectfully submits that it has considered the impact of revised labour wage rate over and above the normative O&M, as part of the O & M expenses. The Petitioner humbly requests the Hon'ble Commission to take cognizance of the revised labour wage rates and approve the additional costs over the normative O&M costs. The relevant circulars are attached as **Annexure - 25**.

14.4.2.14 The projected impact of labour wage revision for FY 2025-26 to FY 2029-30 are tabulated below for the kind consideration of the Hon'ble Commission.

Table 182: Impact of labour wage revision for FY 2025-26 to FY 2029-30 (Rs. Crore)

Stations	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Wage revision impact of Circular dated 14.10.2024	81.46	85.01	88.71	92.58	96.61

Impact of Pay revision

14.4.2.15 As mentioned in the true-up section, the Hon'ble Commission has approved normative O&M expense based on the historical average O&M expenses with escalation as per norms provided in the MERC (MYT) Regulations 2019. Further, in MTR Order impact of pay revision has been approved separately for FY 2023-24 based on the actual amount for FY 2021-22 with escalation based on WPI/CPI indices. The Petitioner submits that O&M expenses projected for FY 2024-25 are including the impact of pay revision corresponding to pay revision amount approved by the Hon'ble Commission for FY 2024-25 in MTR order.

14.4.2.16 It is submitted that the Petitioner has announced a pay revision for its employees through circulars no. 546, 548, and 549 dated 09.08.2024. As per

these circulars, the pay revision is effective from 01.04.2023. In light of this, impact of this pay revision for MYT control period has worked out considering escalation factor of 4.36% on the pay revision impact provided for FY 2024-25 in foregoing section of this petition. It is submitted that the revised salary payments commenced with the August 2024 payroll, and the arrears will be disbursed during FY 2024-25.

- 14.4.2.17 The Petitioner respectfully submits that the norm approved in MERC (MYT) Regulations 2024 for new stations are without considering impact of pay revision announced as per circular dated 09.08.2024. Further, Regulation 48.1 (e) of MERC (MYT) Regulations 2024 provides that wage revision if any during the MYT control period shall be subject to treatment as per sharing of gains and loss. The relevant excerpt of the Regulation is reproduced as under:

“48.1.....

e) Wage revision, if any, during the Control Period, shall be treated as part of employee expense as controllable parameter and compared vis-à-vis normative O&M expense. Hence, the impact of arrears of wage revision, if any, booked as part of employee expense in any particular year, shall be normalised annually over Control Period and shall be subject to treatment as per sharing of gains and loss as per Regulation 11 for the purpose of true-up of O&M expense of respective years, subject to prudence check.”

- 14.4.2.18 However, the Petitioner most respectfully submits that the aforesaid pay revision was announced during the current (4th) control period. Hence, in case of old stations, the Petitioner has considered O&M expenses for 5th MYT control period considering escalation on the amount of pay revision for FY 2024-25. Further, O&M expenses of new stations are allowed on normative basis, however the Petitioner most respectfully submits that pay revision was announced through circular dated 09.08.2024 hence the same could not be provided to the Hon’ble Commission at the stage of framing of MYT Regulations 2024. Hence, it is to be noted that the norm approved by the Hon’ble Commission for 5th MYT Control Period are without considering impact of this pay revision. Therefore, the Petitioner has considered O&M expense for new stations including impact of aforesaid pay revision. In light of this, the Petitioner requests the Hon’ble Commission to approve the impact of pay revision announced in 4th Control period and subsequently allow for the adjustment of the differential amount based on actual disbursements.

O&M Costs for FGD/SCR installation

- 14.4.2.19 The Petitioner respectfully submits that the O&M costs associated with the FGD/SCR systems, which are anticipated to be commissioned during the period from FY 2025-26 to FY 2029-30, have been duly considered. The Petitioner requests the Hon’ble Commission to approve the costs.

- 14.4.2.20 The Petitioner has calculated the O&M expenses for the FGD/SCR systems based on the Regulation 48.3 of the MERC MYT Regulation 2024. The excerpt of the regulation is provided below,

“48.3 The operation and maintenance expenses on account of Emission Control System in coal or lignite based thermal generating station shall be 2% of the admitted capital expenditure (excluding interest during construction) as on its date of commercial operation, which shall be escalated annually @4.33% during the Control Period ending on 31st March 2030:”

14.4.2.21 The projected FGD/SCR O&M costs for FY 2025-26 to FY 2029-30 are tabulated below for the kind consideration of the Hon'ble Commission.

Table 183: O&M Expenses towards Emission Control System for FY 2025-26 to FY 2029-30 (Rs. Crore)

Stations	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Chandrapur Units 3 -7	2.46	2.57	26.36	27.50	28.69
Khaperkheda Units 1-4	4.96	5.17	5.39	5.63	5.87
Koradi Unit 6	1.87	1.95	2.03	2.12	2.21
Nashik Units 4-5	-	-	-	-	-
Paras Units 3-4	5.90	9.25	9.65	10.07	10.51
Parli Units 6-7	2.31	3.22	3.36	3.50	3.65
Khaperkheda Unit 5	-	-	11.20	11.69	12.20
Bhusawal Units 4-5	-	8.05	16.81	17.53	18.29
Koradi Units 8-10	-	-	20.57	32.19	33.58
Chandrapur Units 8-9	-	-	11.85	16.47	17.19
Parli Unit 8	2.06	2.14	2.24	2.33	2.44
Total	19.56	32.35	109.46	129.04	134.63

Costs related to Ash transportation and infrastructure development

14.4.2.22 The Petitioner submits that, in compliance with the directions of MoEFCC and MoP, and with the aim to improve the ash utilisation in the 5th Control Period, the Petitioner has made projections towards such expenses. The expenses include cost related to ash transportation and infrastructure towards ash utilisation for the plants of MSPGCL.

14.4.2.23 The Petitioner respectfully submits that the estimated expenditure for the utilization of Dry Fly Ash, Pond Ash, and the development of necessary infrastructure to improve ash utilization is projected to be Rs. 2838.97 Crore for the MYT period from FY 2025-26 to FY 2029-30. The breakup of these projected expenses is provided below.

Table 184: Projected Expenses related to Ash Utilisation (in Rs. Cr.)

Particular	Year wise Financial Burden					
	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Total
Towards Dry fly Ash utilization	86.00	86.00	86.00	86.00	86.00	430.00
Expenditure towards Pond Ash utilization	302.25	332.47	365.73	402.04	441.48	1843.97
Expenditure towards infrastructure development to increase Ash utilization	151.00	151.00	121.00	71.00	71.00	565.00
Total	539.25	569.47	572.73	559.04	598.48	2838.97

14.4.2.24 Furthermore, the Petitioner submits that the relevant expenditure is of varied nature, revenue as well as capital expenditure. The Petitioner further submits that the claims for the expenses at the time of true-up will be made in accordance with the relevant provisions of the applicable regulations. The plant-wise detailed break-up of the said expenditures is provided in Chapter-5.

14.4.2.25 The Petitioner respectfully submits that, as stated in the earlier sections, the normative O&M expenses for Koradi Unit 6, as approved by the Hon'ble Commission in the MTR Order from FY 2022-23 onwards, were based on the operation of both Units 6 and 7. However, with the retirement of Unit 7 and only Unit 6 remaining in operation, the Petitioner has considered the normative O&M expenses for Koradi Unit 6 as two-thirds of the amount approved by the Hon'ble Commission for FY 2021-22 in the MTR Order, along with the applicable escalation up to FY 2023-24. The Petitioner submits that the two-thirds proportion has been considered in view of common auxiliaries that are essential for operation of Unit 6. Accordingly, the revised normative O&M expenses for Koradi Unit 6 for 5th Control Period have been calculated. As assessment of ratio of apportionment can be undertaken at the time of true-up.

14.4.2.26 Additionally, as detailed in the earlier sections, CEA in its report regarding the O&M norms for Koradi Units 8-10, noted that the O&M expense norm for FY 2020-21 was significantly reduced compared FY 2019-20 for 600/660 MW units. This reflects a reduction of approximately 7.7% O&M expenses. In view of the above, the Petitioner submits that the revised normative O&M expenses have been calculated, aligning with the CERC norm for the 5th Control Period. The Petitioner, therefore, respectfully requests the Hon'ble Commission to approve the normative O&M expenses in accordance with the CERC O&M norm, as stipulated in the Tariff Regulations 2024.

14.4.2.27 The Petitioner submits that, under Regulation 48.1(g), IT-related expenses may be claimed over and above the normative O&M expenses. The relevant excerpt of the regulation is provided below,

“g) A Generating Company may undertake Opex schemes for system automation, new technology and IT implementation, etc., and such expenses may be allowed over and above normative O&M Expenses, subject to prudence check by the Commission as per the provisions of the MERC (Approval of Capital Investment Schemes) Regulations, 2022.”

14.4.2.28 In view of the above, the Petitioner submits the IT expenses projected to be incurred for the 5th Control Period, as per the table provided below.

Table 185: IT Expenses for 5th Control Period

Particulars (Rs. Cr.)	5 th Control Period				
	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
IT expenses	29.18	61.27	59.17	63.91	81.82

14.4.2.29 As elaborated in the True Up chapters, IT expenses are recorded under A&G expenses in Head Office (H.O) expenses and subsequently allocated to the

stations. The Petitioner will provide a station-wise breakdown of IT expenses within A&G expenses during the course of proceedings of this Petition. Currently, IT expenses are included in A&G expenses, and therefore, the normative O&M expenses projected for MYT period is including IT expenses. In light of this, the Petitioner respectfully requests the Hon'ble Commission to allow these IT expenses separately, in addition to the normative O&M expenses, while approving the O&M expenses for MYT Control period, based on the details of station wise actual IT expenses apportioned from FY 2019-20 to FY 2023-24, that will be provided by the Petitioner during proceedings of this Petition.

14.4.2.30 Based on the above submissions, the overall O & M expenses including water charges and pay revision impact for the stations is provided in the table below:

Table 186: Projected O&M expenses for MYT 5th Control Period (FY 2025-26) (Rs. Crore)

Station/Unit	Projection					
	O&M expenses	Pay Revision	Water charges	Other Charges	Hydro colny related	Total O&M expenses
Bhusawal Unit 3	127.77	8.91	22.93	7.41		167.02
Chandrapur Units 3 -7	740.73	68.14	13.57	44.95		867.40
Khaperkheda Units 1-4	359.12	28.19	61.37	30.27		478.95
Koradi Unit 6	190.95	15.40	1.48	15.41		223.24
Nashik Units 3-5	304.80	21.74	41.18	29.41		397.14
Uran	112.14	9.61	-	0.05		121.80
Paras Units 3-4	206.65	17.26	2.05	15.39		241.34
Parli Units 6-7	206.65	18.05	74.33	17.09		316.12
Khaperkheda Unit 5	143.00	9.55	32.63	20.41		205.60
Bhusawal Units 4-5	286.00	24.92	5.08	39.81		355.81
Koradi Units 8-10	479.36	26.08	63.80	35.19		604.44
Chandrapur Units 8-9	286.00	14.27	47.75	21.40		369.42
Parli Unit 8	103.33	9.02	37.17	15.16		164.67
SHP	147.00	23.63	-	0.37	1.49	172.48
Bhira	8.13	0.96	-	0.00	0.06	9.15
Koyna	118.15	18.21	-	0.34	1.19	137.89
Tillari	16.78	1.46	-	-	0.05	18.30
Total	3,836.55	315.41	403.35	292.68	2.79	4,850.78

Table 187: Projected O&M expenses for FY 2026-27 (Rs. Crore)

Station/Unit	Projection					
	O&M expenses	Pay Revision	Water charges	Other Charges	Hydro colny related	Total O&M expenses
Bhusawal Unit 3	133.33	9.30	24.54	7.41		174.58
Chandrapur Units 3 -7	773.00	71.11	14.93	44.95		903.99
Khaperkheda Units 1-4	374.77	29.41	64.63	30.27		499.09
Koradi Unit 6	199.27	16.07	1.59	15.41		232.35
Nashik Units 3-5	318.08	22.69	47.44	29.41		417.63
Uran	117.03	10.03	0.00	0.05		127.11
Paras Units 3-4	215.60	18.01	2.38	15.39		251.38
Parli Units 6-7	215.60	18.83	74.33	17.09		325.86
Khaperkheda Unit 5	150.50	9.97	34.34	20.41		215.23
Bhusawal Units 4-5	301.00	26.01	5.72	39.81		372.54
Koradi Units 8-10	500.15	27.22	67.91	35.19		630.47
Chandrapur Units 8-9	301.00	14.89	49.29	21.40		386.58
Parli Unit 8	107.80	9.42	37.17	15.16		169.54
SHP	153.40	24.65	0.00	0.37	1.55	179.98
Bhira	8.48	1.01	0.00	0.00	0.06	9.55
Koyna	123.29	19.00	0.00	0.34	1.24	143.88
Tillari	17.52	1.52	0.00	0.00	0.06	19.09
Total	4009.82	329.15	424.28	292.68	2.92	5058.84

Table 188: Projected O&M expenses for FY 2027-28 (Rs. Crore)

Station/Unit	Projection					
	O&M expenses	Pay Revision	Water charges	Other Charges	Hydro colny related	Total O&M expenses
Bhusawal Unit 3	139.14	9.71	101.41	7.41		257.66
Chandrapur Units 3 -7	806.68	74.21	16.42	44.95		942.26
Khaperkheda Units 1-4	391.10	30.70	150.98	30.27		603.05
Koradi Unit 6	207.95	16.77	27.07	15.41		267.21
Nashik Units 3-5	331.94	23.68	54.54	29.41		439.57
Uran	122.12	10.47	0.00	0.05		132.64
Paras Units 3-4	224.95	18.79	128.12	15.39		387.25
Parli Units 6-7	224.95	19.65	74.33	17.09		336.03
Khaperkheda Unit 5	158.40	10.40	85.50	20.41		274.72
Bhusawal Units 4-5	316.80	27.14	364.59	39.81		748.34
Koradi Units 8-10	521.93	28.40	309.47	35.19		895.00
Chandrapur Units 8-9	316.80	15.54	50.90	21.40		404.64
Parli Unit 8	112.48	9.83	37.17	15.16		174.63
SHP	160.08	25.73	0.00	0.37	1.62	187.80
Bhira	8.85	1.05	0.00	0.00	0.07	9.97
Koyna	128.66	19.83	0.00	0.34	1.30	150.13
Tillari	18.28	1.59	0.00	0.00	0.06	19.92
Total	4191.11	343.49	1400.51	292.68	3.04	6230.83

Table 189: Projected O&M expenses for FY 2028-29 (Rs. Crore)

Station/Unit	Projection					
	O&M expenses	Pay Revision	Water charges	Other Charges	Hydro colny related	Total O&M expenses
Bhusawal Unit 3	145.20	10.13	104.73	7.41		267.48
Chandrapur Units 3 -7	841.82	77.44	18.06	44.95		982.28
Khaperkheda Units 1-4	408.14	32.03	156.67	30.27		627.11
Koradi Unit 6	217.01	17.50	27.82	15.41		277.75
Nashik Units 3-5	346.40	24.71	62.58	29.41		463.10
Uran	127.44	10.92	0.00	0.05		138.42
Paras Units 3-4	234.70	19.61	130.92	15.39		400.62
Parli Units 6-7	234.70	20.51	74.33	17.09		346.64
Khaperkheda Unit 5	166.70	10.86	88.63	20.41		286.60
Bhusawal Units 4-5	333.40	28.32	374.37	39.81		775.90
Koradi Units 8-10	544.50	29.64	319.97	35.19		929.31
Chandrapur Units 8-9	333.40	16.22	52.56	21.40		423.58
Parli Unit 8	117.35	10.25	37.17	15.16		179.93
SHP	167.06	26.85	0.00	0.37	1.69	195.97
Bhira	9.24	1.10	0.00	0.00	0.07	10.40
Koyna	134.27	20.70	0.00	0.34	1.35	156.66
Tillari	19.07	1.66	0.00	0.00	0.06	20.79
Total	4380.40	358.45	1447.83	292.68	3.17	6482.54

Table 190: Projected O&M expenses for FY 2029-30 (Rs. Crore)

Station/Unit	Projection					Total O&M expenses
	O&M expenses	Pay Revision	Water charges	Other Charges	Hydro colny related	
Bhusawal Unit 3	151.53	10.57	109.06	7.41		278.57
Chandrapur Units 3 -7	878.49	80.82	19.87	44.95		1024.14
Khaperkheda Units 1-4	425.92	33.43	160.24	30.27		649.86
Koradi Unit 6	226.47	18.26	28.58	15.41		288.73
Nashik Units 3-5	361.49	25.79	71.69	29.41		488.38
Uran	133.00	11.40	0.00	0.05		144.45
Paras Units 3-4	244.85	20.46	135.04	15.39		415.75
Parli Units 6-7	244.85	21.40	74.33	17.09		357.68
Khaperkheda Unit 5	175.45	11.33	91.17	20.41		298.36
Bhusawal Units 4-5	350.90	29.56	384.33	39.81		804.59
Koradi Units 8-10	568.06	30.93	328.74	35.19		962.92
Chandrapur Units 8-9	350.90	16.92	54.29	21.40		443.52
Parli Unit 8	122.43	10.70	37.17	15.16		185.45
SHP	174.34	28.02	0.00	0.37	1.77	204.49
Bhira	9.64	1.14	0.00	0.00	0.07	10.85
Koyna	140.12	21.60	0.00	0.34	1.41	163.47
Tillari	19.91	1.73	0.00	0.00	0.06	21.70
Total	4578.33	374.07	1494.51	292.68	3.31	6742.90

Table 191: Summary of Projected O&M expenses for MYT 5th Control Period (Rs. Crore)

Particulars	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	167.02	174.58	257.66	267.48	278.57
Chandrapur Units 3 -7	867.40	903.99	942.26	982.28	1,024.14
Khaperkheda Units 1-4	478.95	499.09	603.05	627.11	649.86
Koradi Unit 6	223.24	232.35	267.21	277.75	288.73
Nashik Units 3-5	397.14	417.63	439.57	463.10	488.38
Uran	121.80	127.11	132.64	138.42	144.45
Paras Units 3-4	241.34	251.38	387.25	400.62	415.75
Parli Units 6-7	316.12	325.86	336.03	346.64	357.68
Khaperkheda Unit 5	205.60	215.23	274.72	286.60	298.36
Bhusawal Units 4-5	355.81	372.54	748.34	775.90	804.59
Koradi Units 8-10	604.44	630.47	895.00	929.31	962.92
Chandrapur Units 8-9	369.42	386.58	404.64	423.58	443.52
Parli Unit 8	164.67	169.54	174.63	179.93	185.45
SHP	172.48	179.98	187.80	195.97	204.49
Bhira	9.15	9.55	9.97	10.40	10.85
Koyna	137.89	143.88	150.13	156.66	163.47
Tillari	18.30	19.09	19.92	20.79	21.70
Total	4,850.78	5,058.84	6,230.83	6,482.54	6,742.90

14.4.3 Special Allowance for Coal-based/Lignite fired Thermal and Hydro Generating Stations

14.4.3.1 Water Resources Department (WRD), Government of Maharashtra, has recently notified a policy for “Renovation, Modernisation, Uprating and Life Extension (RMU & LE) for Hydroelectric Projects on Lease, Renovate, Operate and Transfer

(LROT) Basis”, for the hydro projects which are owned by WRD (Annexure - 33). Through these policies, the life extension is to be carried out for the hydro units which have completed 35 years of life or about to complete 35 years of life in the 5th Control period.

14.4.3.2 WRD has categorised the hydro power plants into categories,

Category-I – Purely power project units, like Koyana, Bhira, Tillari, Ghatghar & Vaitarana

Category-II – Remaining small hydro stations

14.4.3.3 For Category-I, WRD decided that the RMU & LE activities are to be carried out by the Petitioner. However, for the Category-II the RMU&LE activity is to be carried out through an agency/ vendor which will be selected by WRD through competitive bidding process. The Petitioner can compete in the bidding process and carry out the RMU & LE work if it wins the bid. In case, the Petitioner fails to win the bid, it will have to handover the units to the selected bidder at that time.

14.4.3.4 Considering that WRD has yet to initiate the process for assessment of RMU & LE works to be carried out for the units which have already completed 35 years’ life or the units which will complete 35 years’ life in next 5 years, the Petitioner has considered all the hydro capacity under this category for projections for the next control period.

14.4.3.5 Based on finalization of decisions related to RMU & LE activities, the units will be withdrawn at the time of actual execution by MSPGCL or handing over to the selected vendor, as the case may be.

14.4.3.6 In stations where MSPGCL will undertake RMU&LE activities for hydro units it will have to pay Annual Lease Rent (@Rs. 4.5 lakh /MW) and Intake-maintenance charge (@ Rs. 0.5 /kWh). Since the RMU&LE activity for the units under Category – I are to be undertaken by MSPGCL, such charges will be payable to WRD post RMU & LE activities. Similar charges are to be payable for units under Category-II which will be awarded to MSPGCL for RMU & LE works.

14.4.3.7 Regulation 44 of the MERC (MYT) Regulation, 2024, provides the Special allowance for Coal-based/Lignite fired thermal and Hydro generating stations. The regulation is provided below,

“44 Special Allowance for Coal-based/Lignite fired Thermal and Hydro Generating Station

...

44.3 The Generating Company shall submit the details of all work to be undertaken through special allowance, with the MYT petition, for the approval of the Commission, which shall be granted after prudence check of reasonableness of the cost estimates, cost-benefit analysis, and such other factors as may be considered relevant by the Commission:

Provided that, the Special Allowance admissible to a generating station shall be maximum upto INR 10.75 lakh per MW per year for the control period:

Provided also that, the Generating Company opting for special allowance shall not be allowed to capitalise the assets created through special allowance and shall not be eligible for Depreciation, Return of Equity, Interest on Loan on such assets created through special allowance:

Provided also that no additional capitalization shall be admissible under MERC Capex Regulations, 2022 once the special allowance is claimed and utilised by the Generating Company subject to prudence check by the Commission."

14.4.3.8 For Hydro units, Special allowance of Rs. 10.75 lakh per MW shall be utilised every year towards Renovation & Modernisation Capex schemes from 01.04.2025 till commencement of RMU & LE works. MSPGCL will approach Hon'ble Commission for in-principle approval of such RMU & LE schemes under MERC (CAPEX) regulations, 2022.

14.4.3.9 Since the timelines for implementation of RMU & LE activities are yet to be finalised, the Petitioner has not considered these charges for projection purpose. However, to assess the financial implication of such charges, the estimated annual impact for charges to be paid to WRD for units under Category-I as well as under Category-II is tabulated below. Whenever applicable these charges will be claimed as additional O & M costs for hydro units.

Table 192: Additional O&M expenses for Hydro Units for MYT 5th Control Period (Rs. Crore)

Category -I projects which have completed life of 35 years & which will remain with MSPGCL							
Station	Annual Lease rent charges in Rs. Crs. (@ Rs. 4.5 Lakh / MW for FY 22-23) -- Annual claim as part of O & M cost, post RMU LE works + GST @ 18%	In-take maintenance charges in Rs. Crs. (@ Rs. 0.5 /kWh for FY 22-23)-- Annual claim as part of O & M cost, post RMU LE works	Threshold premium in Rs. Crs.-- Nil for Category -I -- Claim as part of Capital cost post RMU LE works	Annual Lease rent charges in Rs. Crs.for FY 26-27 (with escalation rate 5% p.a. and GST @ 18%)	In-take maintenance charges in Rs. Crs. for FY 26-27 (with escalation rate 5% p.a.)	Cost for 13% free power on the basis of charges to be paid to WRD (apart from tariff towards R & M costs and O & M costs) Rs. Crs.	Total costs to be added to O & M towards charges to be paid to WRD Rs. Crs. in FY 26-27 (assuming that LE RMU gets complete by March'2026)
Koyana Stg-III	16.99	28.00	0.00	19.67	32.41	6.77	58.85
Koyana Dam Foot	1.91	7.30	0.00	2.21	8.45	1.39	12.05
Vaitarana	3.19	7.20	0.00	3.69	8.33	1.56	13.59
Vaitarana D.T	0.08	0.40	0.00	0.09	0.46	0.07	0.63
Tillari	3.50	6.65	0.00	4.06	7.70	1.53	13.28
Bhira	4.25	3.75	0.00	4.92	4.34	1.20	10.46
	29.92	53.30	0.00	34.64	61.70	12.52	108.86

Category -II projects which have completed life of 35 years & continuation of which with MSPGCL will depend on R & M competitive bidding process							
Station	Annual Lease rent charges in Rs. Crs. (@ Rs. 4.5 Lakh / MW) -- Annual claim as part of O & M cost, post RMU LE works +GST @18%	In-take maintenance charges in Rs. Crs. (@ Rs. 0.5 /kWh)-- Annual claim as part of O & M cost, post RMU LE works	Threshold premium in Rs. Crs.--Minimum Rs. 2 Lakh / MW for Category -II units -to be claimed as part of Capital cost post RMU LE	Annual Lease rent charges in Rs. Crs.for FY 26-27 (with escalation rate 5% p.a. and GST @ 18%)	In-take maintenance charges in Rs. Crs. for FY 26-27 (with escalation rate 5% p.a.)	Cost for 13% free power on the basis of charges to be paid to WRD (apart from tariff towards R & M costs and O & M costs) Rs. Crs.	Total costs to be added to O & M towards charges to be paid to WRD Rs. Crs. in FY 26-27 (assuming that LE RMU gets complete by March'2026)
Yeldari	1.19	0.45	0.45	1.38	0.52	0.26	2.16
Bhatghar	0.85	0.36	0.32	0.98	0.42	0.19	1.59
Paithan	0.64	0.21	0.24	0.74	0.24	0.13	1.11
Pawana	0.53	0.16	0.20	0.61	0.19	0.11	0.91
	3.21	1.18	1.21	3.72	1.37	0.69	5.77

Category -II projects which will completed life of 35 years during next 5 years & continuation of which with MSPGCL will depend on R & M competitive bidding process							
Station	Annual Lease rent charges in Rs. Crs. (@ Rs. 4.5 Lakh / MW) -- Annual claim as part of O & M cost , post RMU LE works +GST @18%	In-take maintenance charges in Rs. Crs. (@ Rs. 0.5 /kWh)-- Annual claim as part of O & M cost , post RMU LE works	Threshold premium in Rs. Crs.-Minimum Rs. 2 Lakh / MW for Category -II units -to be claimed as part of Capital cost post RMU LE	Annual Lease rent charges in Rs. Crs.for FY 26-27 (with escalation rate 5% p.a. and GST @ 18%)	In-take maintenance charges in Rs. Crs. for FY 26-27 (with escalation rate 5% p.a.)	Cost for 13% free power on the basis of charges to be paid to WRD (apart from tariff towards R & M costs and O & M costs) Rs. Crs.	Total costs to be added to O & M towards charges to be paid to WRD Rs. Crs. in FY 26-27 (assuming that LE RMU gets complete by March'2026)
Panshet	0.42	0.25	0.16	0.49	0.29	0.11	0.89
Varasgaon	0.42	0.30	0.16	0.49	0.35	0.11	0.95
Kanher	0.21	0.15	0.08	0.25	0.17	0.06	0.48
Bhatsa	0.80	0.62	0.30	0.92	0.72	0.22	1.86
Dhom	0.11	0.11	0.04	0.12	0.13	0.03	0.28
	1.96	1.43	0.74	2.27	1.66	0.53	4.46

Special allowance for Thermal Power Plant:

14.4.3.10 As per Regulation 44 of MYT Regulation 2024, the thermal generating stations which have completed the useful life as specified in the regulations, may opt to avail “Special Allowance” for meeting the requirement of expenses towards capital expenditure as per MERC (Approval of Capital Investment Schemes) Regulations, 2022. This cost shall include capital expenditure for change in law, award for arbitration or for compliance of the directions of order of any statutory authority or order or decree of any court of law and force majeure.

14.4.3.11 This special allowance of maximum Rs. 10.75 lakhs per MW per year for control period, has following major riders:

- Any upward revision of the capital cost or relaxation in the applicable operational norms if any allowed by the Hon’ble Commission shall not be allowed
- The details of all work to be undertaken through special allowance be submitted along with MYT Petition for the approval of Hon’ble Commission which shall be granted after prudence check of reasonableness of the cost estimate, cost benefit analysis and such other factors as may be considered relevant by the Hon’ble Commission.
- Special allowance shall be purely OPEX and all CAPEX treatment like depreciation, RoE, interest on loans will not be allowed.
- Separate record for special allowance as well as true-up at the end of control period

14.4.3.12 In this case, it is to mention that when special allowance itself displaces or stops all capital expenditure and exposes the Petitioner to additional risk such as change in law, force majeure, court awards and statutory directions. Its usefulness for old units (on the extended life) has been limited or negated. Further, opting for special allowance will result in immediate removal of operational norm relaxations for older units, which is detrimental and disincentivizes the utility from opting for the special allowance.

14.4.3.13 It may be noted that EE R&M costs for old units is typically in the range of 2 Cr./MW to Rs. 2.5 Cr./MW for restoration of operational parameters. Whereas, the special O&M is Rs. 10.75 lakh/MW, which is ~5.3% of the lower band of

capital expenditure required. Achieving performance improvements with only 5.3% of the total cost is practically very difficult.

14.4.3.14 Hence, MSPGCL has refrained from opting for special O&M costs, finding itself compelled to choose either more expensive R&M measures or to continue with the limited capital expenditures permissible under the MERC (Approval of Capital Investment Schemes) Regulations, 2022. A comparison of operational norms and challenges can be submitted to substantiate these constraints. The Hon'ble Commission is requested to consider invoking the Power to Relax operational norms, thereby supporting CEA directives to operate the plants until 2030 and improve availability to support growing power demands. Typically, such units have low fix cost component, as assets are almost depreciated.

14.4.3.15 The Petitioner submits that the special O&M allowance can also be provided to gas-based power plants, as the OEM support for old machines has already been diminishing and R&M of the gas-based plants is equivalent to new plant cost.

14.4.3.16 The Petitioner further submits that, as per Regulations, availing of special allowance would result in removal of relaxation in operational norms. Following is the comparison of relaxed norm vis-à-vis applicable norm considering applicability of special allowance.

Comparison of relaxed norm vis-à-vis applicable norm considering applicability of special allowance

Stations	Configuration	Capacity (MW)	Target AVF		SHR		Auxiliary cons.		SFOC	
			Relaxed norm	Norm as per regulations	Relaxed norm	Norm as per regulations	Relaxed norm	Norm as per regulations	Relaxed norm	Norm as per regulations
Bhusawal Unit 3	1x 210 MW	210	85%	85%	2787	2415	10.96%	9.50%	1.40	0.5
Chandrapur Units 3-4	2x210 MW	420	80%	85%	2688	2415	8.67%	9.50%	1.00	0.5
Chandrapur Units 5 -7	3x500 MW	1500	80%	85%	2688	2375	8.67%	6.25%	1.00	0.5
Khaperkheda Units 1-4	4x 210 MW	840	85%	85%	2630	2415	9.70%	9.50%	1.20	0.5
Nashik Units 3-5	3x 210 MW	630	85%	85%	2754	2415	10.75%	9.50%	1.00	0.5
Uran	4x108 MW+2x120	672		85%						
Combined Cycle				85%	2035	2035	2.75%	2.75%		
Open Cycle				85%	2900	2900	1.00%	1.00%		
Total		4272								

14.4.3.17 Considering the restoration of relaxed norms, it would lead to a disallowance of fuel costs, significantly affecting the Petitioner's financial position and cash flow.

14.4.3.18 Further, Regulation 48.1 (i) of MERC (MYT) Regulations 2024 provides that If the Generating Station or Unit opts for Special Allowance as per the provisions of the Regulation 44, the applicable O&M norms for such Generating Station/Unit shall be as per the provisions of the Regulation 48.2 for the respective category and type of the Generator. Following is the comparison of normative O&M expenses for these old units based on historical expenses and O&M expenses as per Regulation 48.2 (norm of Rs. Lakhs/MW) if opt for special allowance.

Comparison of O&M expenses as per historical expense and as per norm of Rs. Lakhs/MW for FY 2025-26

Stations	Configuration	Capacity (MW)	O&M Norm (Rs. lakh/MW)	O&M as per norm (Rs. Cr)	O&M exp projection as per historical exp	Reduction/ (excess) in O&M
		a	b	c=a*b/100	d	e = d-c
Bhusawal Unit 3	1x 210 MW	210	41.33	86.79	127.77	40.97
Chandrapur Units 3-4	2x210 MW	420	41.33	602.59	740.73	138.14
Chandrapur Units 5 -7	3x500 MW	1500	28.6	347.17	359.12	11.95
Khaperkheda Units 1-4	4x 210 MW	840	41.33	260.38	304.80	44.42
Nashik Units 3-5	3x 210 MW	630	41.33	108.66	112.14	3.48
Uran	4x108 MW+2x120 MW	672	16.17			
Total		4272		1,405.59	1,644.56	238.97

14.4.3.19 Due to availing of the 'Special Allowance' for older units, fuel cost disallowance is expected to increase, attributable solely to changes in SHR and also as indicated in above table, O&M cost is likely to reduce by Rs.238.97 Crore per annum. Whereas considering special allowance of Rs.10.75 Lakhs/MW per year, the Petitioner is entitled for special allowance of Rs.459.24 Crore per year as shown in below table. Moreover, no capital expenditure for those stations shall be allowed.

Yearly special allowance as per Rs.10.75 Lakhs/MW

Stations	Configuration	Capacity (MW)	Special allowance (Rs. Crore)
Bhusawal Unit 3	1x 210 MW	210	22.58
Chandrapur Units 3-4	2x210 MW	420	45.15
Chandrapur Units 5 -7	3x500 MW	1500	161.25
Khaperkheda Units 1-4	4x 210 MW	840	90.30
Nashik Units 3-5	3x 210 MW	630	67.73
Uran	4x108 MW+2x120 MW	672	72.24
Total		4272	459.24

14.4.3.20 Further, the Petitioner respectfully submits that, as per Regulations, the special allowance of Rs. 10.75 lakh/MW per year represents only 5% of the total cost necessary to restore operational parameters. Hence, special allowance amount allowed as per Regulations itself would not be sufficient for expenses required in order to restore the operational norms. After availing special allowance for the aforementioned stations, proposed capitalisation of the Petitioner for FY 2025-26 to FY 2029-30 shall be reduced as per following table.

Summary of capitalisation for 5th MYT Control period FY 2025-26 to FY 29-30 after availing special allowance

Sr. No.	Station	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30	Total - 5 yrs
1	Thermal	981.22	1,018.12	828.27	735.45	392.32	3,955.38
2	Gas	86.58	84.06	133.55	89.11	131.80	525.11
3	Total	1,067.80	1,102.18	961.82	824.57	524.12	4,480.49

14.4.3.21 In light of the above, apart from being ineligible for capital expenditure for such stations due to the availing of a special allowance, the Petitioner is also likely to face disallowance or reduction in cost entitlement, as detailed in the table below:

Summary of additional financial loss or reduction in normative cost entitled for MSPGCL

Particulars	Formula	Amount (Rs. Crore)
Total Special allowance	a	459.24
Reduction in O&M expense	b	238.97
Reduction in normative Fuel cost estimates	c	600.00
Total reduction in entitlement of cost	d=b+c	838.97
Net (deficit) due to availment of special allowan	e=a-d	-379.73

14.4.3.22 In view of above, under these circumstances, availing of the special allowance with such conditions would not be viable for the Petitioner to sustain the operation of these older units in alignment with CEA directives to continue their operation until 2030.

14.4.3.23 Considering the foregoing, the Petitioner is compelled to either select costlier R&M measures or proceed with the limited capital expenditures allowed under the MERC (Approval of Capital Investment Schemes) Regulations, 2022. Therefore, the Petitioner respectfully requests that the Hon'ble Commission exercise its Power to Relax under Regulation 149 of the MERC MYT Regulations 2024, allowing the Special Allowance of Rs. 10.75 lakh/MW per year without any additional conditions or restrictions as elaborated above. The Petitioner respectfully submits that only in the absence of such conditions would it be feasible to operate the plant through 2030. This relief will enable the Petitioner to continue plant operations, thereby enhancing availability to meet increasing power demands. It is further noted that these units typically bear a low fixed-cost component, as their assets are nearly fully depreciated.

14.4.3.24 In light of the above, the Petitioner most respectfully submits the following for consideration:

- The Hon'ble Commission may adopt an approach of providing relaxed performance norms and applying the prevailing O&M cost methodology for thermal generating stations for the initial three years along with allowing special allowance of Rs.10.75 Lakhs/MW per year, as per following table.

Special allowance amount for MYT Control period FY 25-26 to FY 29-30 (Rs. Crore)

Stations	Configuration	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30	Total - 5 yrs
Bhusawal Unit 3	210 MW	22.58	22.58	22.58	22.58	22.58	112.88
Chandrapur Units 3-7	1920 MW	206.40	206.40	206.40	206.40	206.40	1,032.00
Khaperkheda Units 1-4	840 MW	Not opted	Not opted	90.30	90.30	90.30	270.90
Nashik Units 3-5	630 MW	67.73	67.73	67.73	67.73	67.73	338.63
Uran	672 MW	72.24	72.24	72.24	72.24	72.24	361.20
Total (Rs. Crore)		368.94	368.94	459.24	459.24	459.24	2,115.60

- b) Permit the continuation or surrender of the special O&M allowance prior to the MSEDCL MTR process.
- c) While the FGD and SCR requirements are currently under active consideration at the Government of India level, making Change in Law claims for FGD and SCR less likely, due consideration should be given to the significant costs associated with such CAPEX.

Special allowance for Uran Gas TPS

14.4.3.25 The Petitioner further submits that, for Uran GTPS, the special allowance may be granted based on operational norms (without relaxation in performance norms) as specified under the MYT Regulations, unlike the request made for thermal generating stations as mentioned above. Accordingly, special allowance for Uran GTPS for 5th MYT Control period would be as under:

Special allowance amount for Uran GTPS for MYT period FY 25-26 to FY 29-30 (Rs. Crore)

Stations	Configuration	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30	Total - 5 yrs
Uran	672 MW	72.24	72.24	72.24	72.24	72.24	361.20

14.4.4 Depreciation

14.4.4.1 The Petitioner submits that the depreciation for the 5th Control Period has been computed in accordance with Regulations 28 of the MERC (MYT) Regulations, 2024.

14.4.4.2 The depreciation has been computed based on straight line method at the rates specified in the Regulations on the opening balance of the GFA as well as on the assets added during each year. Further, Regulation 28.1 (b) of the MERC (MYT) Regulations, 2024 provides that once the individual asset depreciates to the extent of 70% of the value of the asset, remaining depreciable value as of the 31st March of the year closing shall be spread over the balance useful life of the asset. The Regulation 28.1 (b) of the MERC (MYT) Regulations, 2024, is provided below,

“(b) Depreciation for the Existing Capital Schemes or Existing Assets shall be calculated annually based on the straight-line method at the rates specified in the Annexure I to these Regulations for the assets of the Generating Company or Licensee or ESSD or MSLDC or STU:

Provided that the Generating Company or Licensee or ESSD or MSLDC or STU shall ensure that once the individual asset is depreciated to the extent of seventy percent, remaining depreciable value as on 31st March of the year closing after the period of twelve years from the Commercial Operation Date or the date of assets capitalised shall be spread over the balance Useful Life of the asset including the Extended Life, as provided in this Regulation:

Provided further that the Generating Company or Licensee or ESSD or MSLDC or STU shall submit all such details or documentary evidence as may be required, to substantiate the above claims.”

14.4.4.3 The Petitioner respectfully submits that, for the purpose of computing depreciation on assets during the Control Period, the closing GFA as of 31.03.2025 will be considered as the opening GFA for 01.04.2025. Furthermore, any subsequent asset additions, as outlined in the Capital Expenditure Plan, will be accounted for in the year-on-year depreciation computation for the subsequent years of the Control Period.

14.4.4.4 The details of depreciation expenses have been shown in the specific formats annexed to this petition.

Table 193: Projected Depreciation expenses for MYT Control Period (Rs. Crore)

Station/Unit	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	5.79	7.45	9.12	9.12	9.12
Chandrapur Units 3 -7	199.56	247.75	327.92	342.62	358.72
Khaperkheda Units 1-4	159.64	89.90	103.37	114.53	120.48
Koradi Unit 6	29.96	31.26	32.13	34.99	36.61
Nashik Units 3-5	14.87	24.81	31.15	32.19	32.33
Uran	25.40	29.98	34.42	39.12	43.78
Paras Units 3-4	97.92	98.22	101.40	104.13	105.90
Parli Units 6-7	83.21	88.50	92.68	100.27	107.83
Khaperkheda Unit 5	198.84	206.83	124.24	127.32	131.25
Bhusawal Units 4-5	345.28	156.61	165.14	170.49	177.16
Koradi Units 8-10	727.84	750.67	769.13	780.74	767.85
Chandrapur Units 8-9	351.03	361.88	372.35	377.84	191.59
Parli Unit 8	101.95	105.39	108.16	109.93	106.79
SHP	5.48	6.86	8.38	11.12	12.57
Bhira	0.29	0.33	0.34	0.78	1.01
Koyna	11.73	13.18	14.69	16.29	55.05
Tillari	0.94	1.08	1.07	1.21	1.33
Total	2,359.71	2,220.73	2,295.70	2,372.69	2,259.36

14.4.5 Interest on Loan Capital

14.4.5.1 Regulation 30.2 of the MERC (MYT) Regulations, 2024 provides that the normative loan outstanding as on 1st April, 2025 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31st March, 2025 from the gross normative loan.

“30.2 The normative loan outstanding as on April 1, 2025, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2025, from the gross normative loan.”

14.4.5.2 Accordingly, the Petitioner has arrived at the normative outstanding loan as on 1st April, 2025. The Petitioner has considered normative debt: equity funding at 70:30 and has considered normative loan addition equal to 70% of addition of capitalization in a year.

14.4.5.3 Regulation 30.3 of the MERC (MYT) Regulations, 2024 provides that the repayment during each year of the Control period shall be equal to the depreciation allowed for that year.

“30.3 The loan repayment during each year of the Control Period from FY 2025-26 to FY 2029-30 shall be deemed to be equal to the depreciation allowed for that year.”

14.4.5.4 Accordingly, the Petitioner has considered the repayment of normative loan during each year of the control period equal to the depreciation allowed for that year. As per the Regulation 30.5 of the MERC (MYT) Regulations, 2024 the rate of interest on long term loan considered shall be the weighted average rate of interest computed on the basis of the actual loan portfolio at the beginning of each year.

“30.5 The rate of interest shall be the weighted average rate of interest computed on the basis of the actual long-term loan portfolio at the beginning of each year:

Provided that at the time of Truing-up, the weighted average rate of interest computed on the basis of the actual long-term loan portfolio during the concerned year shall be considered as the rate of interest.”

14.4.5.5 The Petitioner submits that it has projected its actual loan portfolio and the tentative interest rates on loans from various lenders for the Control Period. A weighted average rate of interest on the projected loan portfolio at the beginning of each year is then computed. The Petitioner has used this weighted average rate of interest for computation of the interest on long term loans.

14.4.5.6 Regulation 30.6 of the MERC (MYT) Regulations, 2024 provides that interest on the loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

“30.6 The interest on loan shall be computed on the normative average loan of the year by applying the weighted average rate of interest:

.....”

14.4.5.7 Accordingly, the Petitioner has computed the interest on long term loans on the normative average of outstanding opening balance of loan and closing balance of loan by applying the weighted average rate of interest.

14.4.5.8 Regulation 30.8 of MERC (MYT) Regulations, 2024 provides that the finance charges incurred for obtaining loans from financial institutions for any year shall be allowed by the Commission at the time of truing up, subject to prudence check.

“30.8 The finance charges incurred for obtaining loans from financial institutions for any Year shall be allowed by the Commission at the time of Truing-up, subject to prudence check.”

14.4.5.9 The Petitioner has considered the actual finance charges for FY 2023-24 as estimate for finance charges incurred in each year of the 4th Balance Control period.

14.4.5.10 The interest expenses including other finance charges for various stations estimated for the 5th Control Period are provided in table below:

Table 194: Projected IoLT including other finance charges for MYT Control Period (Rs. Crore)

Station/Unit	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	0.41	3.69	6.49	5.53	4.58
Chandrapur Units 3 -7	90.05	116.73	124.93	125.81	118.66
Khaperkheda Units 1-4	39.98	44.96	58.71	66.55	66.18
Koradi Unit 6	24.12	23.73	22.28	20.39	19.65
Nashik Units 3-5	12.50	28.62	36.70	35.29	32.23
Uran	18.53	21.87	26.45	30.75	34.49
Paras Units 3-4	23.34	22.98	18.88	14.30	7.89
Parli Units 6-7	4.47	6.70	4.83	9.95	14.00
Khaperkheda Unit 5	63.40	56.13	47.85	42.25	36.03
Bhusawal Units 4-5	98.86	85.28	83.22	76.63	70.26
Koradi Units 8-10	426.70	393.65	350.68	294.77	232.32
Chandrapur Units 8-9	226.64	208.96	190.41	163.66	146.43
Parli Unit 8	77.35	72.40	66.36	58.59	50.35
SHP	5.74	7.62	9.45	11.16	12.21
Bhira	0.20	0.24	0.25	0.61	0.91
Koyna	3.96	5.05	6.21	7.37	7.04
Tillari	0.43	0.57	0.48	0.55	0.61
Total	1,116.68	1,099.19	1,054.17	964.15	853.83

14.4.6 Interest on Working Capital

14.4.6.1 The Petitioner has computed the Interest on Working Capital as per the provisions of Regulations 32.1 of the MERC (MYT) Regulations, 2024.

14.4.6.2 The rate of interest considered for computation of Interest on Working Capital, calculated as per the Regulation 32.1 (f), is 10.45% (SBI MCLR – Base rate as on 15.10.2024 - 8.95% plus 150 basis point). The excerpt of the Regulation is provided below,

“32.1 (f) Rate of interest on working capital shall be on normative basis and shall be equal to the Base Rate as on the date on which the Petition for determination of Tariff is filed, plus 150 basis points:

Provided that for the purpose of Truing-up for any year, interest on working capital shall be allowed at a rate equal to the weighted average Base Rate prevailing during the concerned Year plus 150 basis points.”

14.4.6.3 Petitioner submits that its prevailing revenue source consists of a single customer, resulting in complete reliance on this customer for revenue. This dependency significantly increases the risk of a potential adverse impact on the Petitioner’s credit rating, potentially leading to increase in the borrowing rate. Petitioner anticipates adverse impact on Petitioner’s credit rating and therefore requests the Hon’ble Commission to approve additional 75 basis points over and above the rate of IoWC computed as per MERC MYT Regulations, 2024.

14.4.6.4 As per Regulation 32.1(a)(vi) of the MERC (MYT) Regulations, 2024, the normative provision for the receivable’s component is equivalent to the sale of electricity for forty-five days of annual fixed charges and energy charges. The Petitioner respectfully submits that the computation of Working Capital has been carried out in accordance with this prescribed norm. However, the Petitioner humbly requests the Hon’ble Commission to permit the Petitioner to claim Working Capital based on the actual receivable days at the time of True-up for the Control Period.

14.4.6.5 Further, it is submitted that Regulation 32.1 (aa) provides for additional working capital for Emission control system of coal or lignite based thermal generating stations. The relevant excerpt of the said Regulation is provided below:

“(aa) In case of Emission Control System of coal or lignite based thermal generating stations, working capital in addition to working capital computed in accordance with Regulation 32.1 (a) shall be allowed covering:

(i) Cost of limestone or reagent towards stock for 20 days for generation corresponding to the target availability;

(ii) Advance payment for 30 days towards cost of reagent for generation corresponding to the target availability;

(iii) Normative Operation and maintenance expenses in respect of emission control system for one month;

(iv) Maintenance spares at one per cent of the opening Gross Fixed Assets in respect of emission control system.”

14.4.6.6 In light of above, interest on working capital is computed and detailed computation of station-wise Interest on Working Capital is provided in the prescribed forms of the Hon’ble Commission.

Table 195: Projected IoWC for MYT Control Period (Rs. Crore)

Station	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	23.75	24.98	27.93	29.27	30.62
Chandrapur Units 3 -7	184.73	196.06	209.04	219.85	230.42
Khaperkheda Units 1-4	81.14	84.57	90.25	93.93	97.77
Koradi Unit 6	21.42	22.26	23.58	25.62	26.60
Nashik Units 3-5	70.10	74.28	78.24	82.30	86.27
Uran	39.50	22.17	22.55	23.02	23.42
Paras Units 3-4	39.50	22.17	22.55	23.02	23.42
Parli Units 6-7	49.81	52.47	57.31	59.88	62.34
Khaperkheda Unit 5	71.79	76.70	79.74	83.51	87.47
Bhusawal Units 4-5	48.27	50.50	53.92	56.27	58.69
Koradi Units 8-10	107.93	110.63	125.14	131.08	136.89
Chandrapur Units 8-9	183.83	190.84	205.62	207.00	202.52
Parli Unit 8	99.69	103.65	108.76	101.95	101.26
SHP	38.19	40.58	41.40	43.05	44.53
Bhira	7.22	7.65	8.01	8.15	8.37
Koyna	0.29	0.30	0.31	0.34	0.37
Tillari	7.89	8.02	8.15	8.33	8.97
Total	1,075.05	1,087.84	1,162.53	1,196.55	1,229.94

14.4.6.7 In addition to the above, as detailed out in the earlier section, MSEDCL has participated in the liquidation of arrears scheme for total amount of Rs.13801 Crore (Principal amount of Rs.8881 Crore and LPS of Rs.4920 Crore). The Petitioner most respectfully submits that current scheme of LPS does not permit the levy of LPS on the agreed arrears. Hence, the Petitioner has been losing the interest amount on the balance outstanding agreed dues. In view of this, the Petitioner has calculated the impact of loss of interest on such amount for the period of 48 months as per LPS scheme at the rate of 10.40%. The loss of interest on outstanding amount of Rs.13801 Crore for 5th Control period is worked out to Rs. 299.44 Crore. Considering that deferment of recovery of such amount will increase the requirement of working capital for the Petitioner, hence the Petitioner requests the Hon'ble Commission to allow additional/incremental amount of Rs. 299.44 Cr over and above the normative IoWC amount computed in above table and request the Hon'ble Commission to work out sharing of gain and losses on IoWC amount accordingly.

14.4.6.8 In view of above, claim of normative and actual IoWC would be as under:

Table 196: Normative IoWC for MYT Control Period (Rs. Crore)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
	Normative	Normative	Normative	Normative	Normative IoWC
Station wise total	1,075.05	1,087.84	1,162.53	1,196.55	1,229.94
Add: Loss of Interest	284.52	14.91			
Total	1,359.57	1,102.75	1,162.53	1,196.55	1,229.94

14.4.7 Return on Equity

14.4.7.1 Regulations 29.1 of the MERC (MYT) Regulations, 2024 provides the Return on Equity in two parts, Base Return on Equity and Performance Linked Return on Equity linked with actual performance.

“29.1 Return on Equity shall be allowed in two parts viz. Base Return on Equity, and Performance Linked Return on Equity linked with actual performance:

Provided that, the Return on Equity allowed at the time of MYT Proceedings shall be inclusive of both Base Return on Equity and Performance Linked Return on Equity:

Provided further that Performance Linked Return on Equity considered at the time of MYT Proceedings is on provisional basis and may undergo change at the time of True-up based on level of performance on various parameters stipulated in these Regulations:”

14.4.7.2 Regulation 29.2 of the MERC (MYT) Regulations, 2024 specifies a rate of 15.5% on the equity portion of the assets put to use.

“29.2 Return on Equity at the time of MYT Proceedings

i. Return on equity for the Generating Company having thermal, gas or hydro plants, Transmission Licensee and Distribution Wires Business, shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of 15.50 (base rate – 14 + performance linked - 1.50) per cent per annum in Indian Rupee terms.”

14.4.7.3 Accordingly, the Petitioner has computed RoE @15.5% on the opening balance of the equity portion of the capitalized assets and on 50% of the equity portion of the capitalized assets added during each year of the Control Period.

Table 197: RoE computed for MYT Period (Rs. Crore)

Station	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	15.12	17.44	19.75	19.75	19.75
Chandrapur Units 3 -7	189.22	221.64	246.13	268.94	287.47
Khaperkheda Units 1-4	192.62	204.16	219.61	231.98	239.52
Koradi Unit 6	50.70	52.41	53.36	54.09	55.88
Nashik Units 3-5	45.42	57.17	64.25	65.43	65.59
Uran	54.22	58.19	63.25	68.43	73.56
Paras Units 3-4	157.85	164.07	167.74	171.27	173.64
Parli Units 6-7	153.97	161.16	165.87	175.75	185.39
Khaperkheda Unit 5	144.62	152.98	158.16	162.56	166.77
Bhusawal Units 4-5	207.94	215.76	225.04	231.86	239.21
Koradi Units 8-10	508.23	533.39	552.76	563.79	570.07
Chandrapur Units 8-9	210.70	221.75	232.89	238.72	245.32
Parli Unit 8	68.05	71.63	74.69	76.75	78.45
SHP	5.19	6.80	8.48	10.22	11.68
Bhira	0.20	0.25	0.28	0.56	0.82
Koyna	8.08	9.60	11.26	13.03	15.19
Tillari	0.79	0.96	0.96	1.09	1.22
Total	2012.92	2149.36	2264.49	2354.22	2429.52

14.4.8 Income Tax

- 14.4.8.1 Regulation 34.1 of the MERC (MYT) Regulations, 2024 specifies that the Income tax on the regulatory profit before tax as allowed by the Commission relating to the generation business regulated by the Commission shall be provisionally approved.

“34.1 The Income Tax for the Generating Company or ESSD or Licensee or MSLDC or STU for the regulated business shall be allowed on Return on Equity, including Performance Linked Return on Equity at the income tax rate applicable for the respective financial year, through the Tariff charged to the Beneficiary/ies, subject to the conditions stipulated in Regulations 34.2 to 34.5:

Provided that, at the time Multi Year Tariff Projections, the Income tax rate shall be allowed as the latest available Income Tax Rate approved by the Commission, whereas, at the time of true-up the Income Tax rate shall be approved based on the actual Income Tax paid by the Generating Company or ESSD or Licensee or MSLDC or STU, subject to prudence check;

Provided further that no Income Tax shall be considered on the amount of efficiency gains and incentive approved by the Commission, irrespective of whether or not the amount of such efficiency gains and incentive are billed separately:

Provided further that no Income Tax shall be considered on the amount of income from Delayed Payment Charges or Interest on Delayed Payment or Income from Other Business, as well as on the income from any source that has not been considered for computing the Aggregate Revenue Requirement:

Provided also that the Income Tax rate shall be considered for the Generating Company or ESSD as a whole, and not Unit-wise/Station-wise:

Provided that, in case of the Generating Company or Licensee or MSLDC has engaged in any other regulated or unregulated Business or Other Business, the actual tax paid on income from any other regulated or unregulated Business or Other Business shall be excluded while arriving at actual income tax rate.

34.2 The rate of Return on Equity, including the rate of Performance Linked Return on Equity as allowed by the Commission under Regulation 29 of these Regulation shall be grossed up with actual tax paid, for the previous year:

- 14.4.8.2 Considering the historical tax paid by the company, the Petitioner has not considered any tax rate for the ensuing years. Any tax liability actually paid shall be considered at the time of true-up.

14.4.9 Non-Tariff Income

14.4.9.1 Regulation 46.2 of the MERC (MYT) Regulations, 2024 specifies that the following expenses be included as Non-Tariff Income:

“45.2 The Non-Tariff Income shall include:

- a) Income from rent of land or buildings;*
- b) Income from sale of scrap;*
- c) Income from investments;*
- d) Income from investment of Contingency Reserves*
- e) Income from sale of ash/rejected coal;*
- f) Interest income on advances to suppliers/contractors;*
- g) Net Income from supply of electricity by the Generating Company to the housing colonies of its operating staff and supply of electricity by the Generating Company for construction works at the generating Station, after adjusting the expenses incurred for supply of such electricity;*
- h) Income from rental from staff quarters;*
- i) Income from rental from contractors;*
- j) Income from hire charges from contractors and others;*
- k) Income from advertisements;*
- l) Income from sale of tender documents;*
- m) Any other Non-Tariff Income:*

Provided that the interest 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 all supply of electricity by the Generating Company to the housing colonies of its operating staff and for construction works at the generating Station, shall be metered and billed separately:

Provided also that the tariff for supply of electricity by the Generating Company to the housing colonies of its operating staff and supply of electricity by the Generating Company for construction works at the generating Station, shall be the same as the Tariff approved by the Commission for the supply of electricity to the respective consumer category by the Distribution Licensee for that area of supply”

14.4.9.2 For the projection of Non-Tariff Income, the Petitioner has considered the actual Non-Tariff Income (submitted for true-up in the previous section) for FY 2023-24 which is as per the latest Audited Accounts.

14.4.10 Expenses related to training costs for the flexible operation of units

14.4.10.1 The Petitioner respectfully submits that, as previously outlined in para 14.4.1, MSPGCL's generating units are mandated to comply with the CEA norms as specified under the CEA Regulations on 'Flexible Operation of Coal-Based Thermal Power Generating Units, 2022.'

14.4.10.2 In order to ensure compliance with the CEA norms, the Petitioner submits that MSPGCL will require specialized training for its plant personnel to facilitate high flexibility operations. The key costs involved in achieving this compliance include the procurement of High Flexibility Operation Simulators for the Koradi and Nashik Training Centers, as well as the training expenses for MSPGCL engineers. These are one-time capital expenditures necessary for the compliance of the norms.

14.4.10.3 The detailed year wise training costs are provided below.

Table 198: Expense related to training costs for flexible operations of units

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
High Flexibility Operation Simulators at Koradi and Nashik	-	25.00	-	25.00	-
Experience sharing for High Flexibility Operation in collaboration with EPRI/JICA, /IGEN, CEMPEEP etc.	0.80	4.00	4.00	4.00	3.20
Total	0.80	29.00	4.00	29.00	3.20

Note: EPRI (Electric Power Research Institute) is a research organisation; JICA (Japan International Cooperation Agency), IGEN (Indo-German Energy Programme), CEMPEEP (Centre for Power Efficiency and Environmental Protection).

14.4.11 Incidental Expenses towards Ash Utilisation:

14.4.11.1 In order to comply the MoEF notification dated 31.12.2021 and subsequent MoP Advisory notification dated 22.02.2022 on ash utilization from coal or lignite thermal power plants, MSPGCL is following the option-wise procedure stipulated to be followed to dispose-off the ash. The main motive for these notifications is to achieve 100% utilization of ash. Copies of relevant documents are attached as Annexure - 34.

14.4.11.2 As per the procedure given in MoP advisory guidelines dated 22.02.2022, as the first option the fly ash is to be sold through competitive bidding process and ash remaining unused after option 1 is to be given free of cost. If ash remains unutilized even after the steps taken in option 1 and 2 above, Thermal Power Plant shall bear the cost of transportation of Fly Ash to be provided free to

eligible projects. The transportation cost wherever required to be borne as per provisions of MOEF & CC notification by the power plants, shall be discovered on competitive bidding basis only.

14.4.11.3 As per the notification, Thermal Power Plants shall prepare a panel of transportation agencies every year based on competitive bidding for transportation in slabs of 50 km which may be used for the period.

14.4.11.4 Further, under the point no. 6 of MoP advisory guidelines dated 22.02.2022, it is mentioned that "The Appropriate Commission shall scrutinize any expenses regarding ash utilization proposed to be passed through in tariff by the Generation Company in accordance with these guidelines to ensure that the least possible burden is passed on to electricity consumers and full transparency is ensured by Generating Company as envisaged in these Guidelines.

14.4.11.5 As the target of 100% ash utilization is not achieved in some of the power stations, MSPGCL is planning to undertake efforts under option 3 i.e., transport & supply the ash remaining unused even after options 1 & 2 to the eligible projects free of cost and bear the transportation costs. MSPGCL will adopt the competitive bidding process for empanelment of transportation agencies. Further, MSPGCL is also exploring the method adopted by NTPC, wherein, instead of bearing the transport cost of ash, a cash incentive is offered to the transporter on an Rs./MT basis. The Petitioner has had some initial success with this approach, as the National Highway Authority of India (NHAI) has expressed interest for 42 lakh MT of ash from Chandrapur and MOIL, Khapa, Nagpur has selected the Khasara ash bund (Koradi TPS) for 70 lakh MT of ash. MSPCL shall offer assistance with the ash transportation cost on an Rs./MT basis.

14.4.11.6 The Petitioner, therefore, requests the Hon'ble Commission to allow pass through of such incidental transportation costs incurred by MSPGCL in order to achieve 100% ash utilisation in the stations on a monthly basis as a part of the monthly bills along with the fixed charges. It is further requested that the Hon'ble Commission may specify the prudence check that may be adopted for allowing such pass through of costs such that the same may be adhered to by the Petitioner and the relevant details may be submitted to the Hon'ble Commission as part of the true-up exercises.

14.4.11.7 In this regard, it is further submitted that the Honourable CERC in case number 205/MP/2021 dated 01.11.2022 has approved the transportation charges for disposal of ash for NTPC stations. In line with the above, the Hon'ble Commission is requested to kindly allow the said Ash disposal expenses for MSPGCL stations.

14.4.12 RE Bundling Plan for 5th Control Period

14.4.12.1 Ministry of Power (MOP) has notified the revised "Flexibility in Generation and Scheduling of Thermal Power Stations to reduce emissions" scheme ("RE Bundling scheme") on 12th April 2022, by repealing the scheme notified on 15th November 2021. As per the RE Bundling scheme, generating companies are allowed to utilize renewable energy for supplying power against their existing

commitments/PPA. The relevant excerpt of the RE Bundling scheme is reproduced below.

“2.3 The Generating companies shall be allowed to utilise such renewable energy for supplying power against their existing commitments/PPAs i.e., replacement of Thermal/Hydro power to procurers anywhere in India.....”

14.4.12.2 Subsequently, as per para 3.2 of Amendment dated 21st June 2023 in the RE Bundling Scheme, a Central or State Generating Company may establish a RE power plant, which is not co-located within the premises of its generating station, through competitive EPC tendering mode, after taking authorisation from the appropriate Government.

14.4.12.3 As per para 3.1 of RE bundling scheme Amendment dated 21st June 2023, in case RE power plant co-located within the premises of a generating station under section 62, the appropriate Commission shall determine the tariff of such RE power supplied.

14.4.12.4 Further, para 3.3 of Amendment stated that in all other cases except para 3.1 and para 3.2, RE shall be procured on a competitive basis. The relevant extract of the para provided in above mentioned amendment to RE Bundling scheme is reproduced as under:

“3.1. In case of RE power plant co-located within the premises of a Generating Station under section 62, the appropriate Commission shall determine the tariff of RE supplied. Provided that such RE power plant shall be established through a competitive EPC tendering.

.....

3.2. A Central or State Generating Company may establish a RE power plant, which is not co-located within the premises of its Generating station, through competitive EPC tendering mode, after taking authorisation from the appropriate Government.

3.3. In all other cases except para 3.1 and 3.2, RE shall be procured on competitive basis.”

14.4.12.5 In continuation to the RE Bundling scheme dated 12th April 2022, the Hon'ble MOP, through a letter dated 26th May 2022 has specified the thermal stations which have to replace the thermal power with the equivalent RE capacity to be developed. The letter specifies the Plant wise trajectory of RE capacity development during the period between FY 2023-24 to FY 2025-26. As per the aforesaid letter, MSPGCL has been given the target to replace 3259 MUs with an equivalent RE capacity of 1692 MW. The plant wise trajectory specified by MOP is provided below.

Table 199: RE Bundling Scheme - Plant wise trajectory for MSPGCL (in MW)

Station Name	Target
Bhusawal TPS	251
Chandrapur	529
Khaparkheda	312
Koradi TPS	454
Nasik TPS	26
Paras TPS	99
Parali TPS	21
Total	1692

14.4.12.6 Based on the trajectory specified by MOP, the Petitioner has planned year-wise capacity addition plan under the RE bundling scheme. The envisaged RE Bundling details of the MSPGCL's thermal power stations are provided below.

Table 200: MSGPCL's RE Bundling plan for the 5th Control Period

Power Station	Capacity (MW)	Bundling Target (MW)	Solar Project		
			Name	Capacity (MW)	Projects Completion Date
Bhusawal U-3	210	251	Dondaicha	250	31.12.2025
Bhusawal U-4,5	1000				
Chandrapur U-3 to 7	1920	529	Lakhmapur (EPC)	65	31.11.2025
			Lower Wardha	505	31.03.2026
			Washim-II	40	30.09.2025
			Yavatmal	50	30.09.2025
			Washim-I	130	31.03.2026
			Yavatmal	25	31.12.2025
			1200 MW EPC+land in 2 Phase of 600 MW each	360	28.02.2026
Khaparkheda U-1 to 4	840	312			
Khaparkheda U-5	500			320	30.06.2026
Koradi U-6	210	454	TPS Land (EPC)	52	31.10.2024
Koradi U-8 to 10	1980		1200 MW EPC+land in 2 Phase of 600 MW each	400	31.12.2025
Nashik U-3 to 5	630			30	30.06.2026
Paras U-3,4	500	99	Paras Solar	62	14.11.2024
			1200 MW EPC+land in 2 Phase of 600 MW each	50	30.06.2026
Parali U-6,7	500	21			
Parali U-8	250		Sakri-II (EPC)	40	30.06.2026
Total	9540	1692		2379	

14.4.12.7 The Petitioner further submits that it will approach the Hon'ble Commission separately to submit the petition from time to time for tariff determination.

14.4.13 Summary of ARR for 5th Control Period

14.4.13.1 The summary of ARR for the years of the 5th Control Period for the existing units is provided in the table below:

Table 201: Projected station wise variable charges (including reagent cost) (Rs./ kWh)

Station	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	5.37	5.64	5.92	6.22	6.53
Chandrapur Units 3 -7	4.61	4.85	5.18	5.44	5.70
Khaperkheda Units 1-4	4.55	4.80	5.00	5.16	5.38
Koradi Unit 6	4.02	4.19	4.36	4.87	5.07
Nashik Units 3-5	5.50	5.78	6.07	6.37	6.69
Uran	5.23	5.23	5.23	5.23	5.23
Paras Units 3-4	4.05	4.28	4.48	4.71	4.94
Parli Units 6-7	6.34	6.81	7.12	7.44	7.77
Khaperkheda Unit 5	3.54	3.72	4.02	4.22	4.42
Bhusawal Units 4-5	4.39	4.61	4.96	5.21	5.47
Koradi Units 8-10	3.53	3.68	3.93	3.91	3.79
Chandrapur Units 8-9	3.86	4.04	4.28	3.88	3.95
Parli Unit 8	6.28	6.74	6.90	7.20	7.52

Table 202: Projected station wise Annual Fixed Charges (Rs. Crore)

Particulars	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	211.28	227.32	320.13	330.32	341.82
Chandrapur Units 3 -7	1,526.55	1,681.88	1,869.79	1,960.15	2,041.25
Khaperkheda Units 1-4	952.96	923.53	1,076.07	1,135.40	1,175.35
Koradi Unit 6	349.94	362.59	399.23	413.59	428.31
Nashik Units 3-5	537.61	600.09	647.51	675.90	702.38
Uran	258.60	258.47	278.47	298.87	318.85
Paras Units 3-4	571.91	594.12	737.99	756.01	771.76
Parli Units 6-7	626.21	656.48	676.87	713.96	750.38
Khaperkheda Unit 5	658.17	679.12	667.54	684.15	700.74
Bhusawal Units 4-5	1,111.93	944.97	1,359.79	1,399.60	1,442.52
Koradi Units 8-10	2,438.43	2,486.42	2,781.14	2,795.18	2,756.67
Chandrapur Units 8-9	1,254.13	1,279.48	1,317.56	1,318.90	1,141.96
Parli Unit 8	449.45	458.86	464.65	467.76	465.18
SHP	208.87	222.53	238.87	253.35	266.06
Bhira	15.88	16.44	16.90	18.44	19.72
Koyna	204.64	214.83	225.53	236.78	284.81
Tillari	28.08	29.36	30.10	31.33	32.57
Total	11,404.65	11,636.50	13,108.12	13,489.69	13,640.31

Table 203: Summary of Total ARR for the stations (Rs. Crore)

Particulars	FY 2025-26	FY 2026- 27	FY 2027- 28	FY 2028- 29	FY 2029- 30
Bhusawal Unit 3	915.56	966.79	1096.57	1,145.59	1,197.85
Chandrapur Units 3 -7	7,141.97	7,601.22	8110.47	8,508.66	8,904.87
Khaperkheda Units 1-4	3,201.63	3,297.95	3551.71	3,687.87	3,837.95
Koradi Unit 6	843.59	876.54	934.51	1,011.12	1,051.34
Nashik Units 3-5	2,707.14	2,878.08	3039.46	3,187.34	3,339.33
Uran	1,479.02	1,478.88	1502.22	1,519.29	1,539.26
Paras Units 3-4	1,906.54	2,003.59	2216.49	2,307.11	2,399.15
Parli Units 6-7	2,741.35	2,927.43	3049.57	3,193.58	3,342.00
Khaperkheda Unit 5	1,897.54	1,980.43	2055.80	2,140.72	2,229.05
Bhusawal Units 4-5	4,182.76	4,169.41	4783.92	4,998.55	5,219.23
Koradi Units 8-10	7,330.95	7,583.79	8153.97	8,149.03	7,947.90
Chandrapur Units 8-9	3,957.98	4,104.74	4273.95	4,000.29	3,872.69
Parli Unit 8	1,508.77	1,596.13	1629.27	1,683.30	1,734.17
SHP	435.22	460.45	482.40	482.28	491.68
Bhira	15.88	16.44	16.90	18.44	19.72
Koyna	493.71	497.62	502.05	507.04	548.80
Tillari	28.08	29.36	30.10	31.33	32.57
Total	40,787.69	42,468.84	45,429.36	46,571.55	47,707.55

Table 204: Summary of ARR for 5th Control Period for the existing stations (Rs. crore)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Variable Charges					
Fuel cost including Other variable charges	28,020.61	29,300.79	30,609.96	31,335.83	32,329.59
Variable Cost - Reagent Cost	847.01	1,010.86	1,191.24	1,246.83	1,248.03
Total Variable cost	28,867.62	30,311.64	31,801.19	32,582.66	33,577.62
Capacity Charges					
O&M expenses	3,836.55	4,009.82	4,191.11	4,380.40	4,578.33
Pay revision	315.41	329.15	343.49	358.45	374.07
Wage Revision	81.46	85.01	88.71	92.58	96.61
Water Charges	403.35	424.28	1,400.51	1,447.83	1,494.51
Other Charges	295.47	295.59	295.72	295.85	295.99
O&M Charges towards FGD	19.56	32.35	109.46	129.04	134.63
Annual Special Allowance - Hydro Stations	67.08	67.94	71.06	71.06	71.06
Interest on Loan and other finance charges	1,116.68	1,099.19	1,054.18	964.15	853.83
Interest on Working Capital	1,022.58	1,049.87	1,117.17	1,149.24	1,182.20
Interest on Working Capital - Loss of Interest	284.52	14.91	-	-	-
Interest on Working Capital - FGD	13.51	16.37	23.40	24.91	24.98
IT Expenses	29.18	61.27	59.17	63.91	81.82
Training expenses twds Flexibilisation Operatio	0.80	29.00	4.00	29.00	3.20
Depreciation	2,359.71	2,220.73	2,295.70	2,372.69	2,259.36
Return on Equity	2,013.31	2,149.76	2,264.88	2,354.62	2,429.91
Hydro Lease Rentals	515.41	520.70	520.05	499.20	489.62
Ash Utilisation Expenses	539.25	569.47	572.73	559.04	598.48
Less: Non-Tariff Income	58.55	58.55	58.55	58.55	58.55
Total Capacity Charges	12,339.87	12,396.16	13,832.73	14,234.23	14,420.42
Hydro Lease Rentals	515.41	520.70	520.05	499.20	489.62
Aggregate Revenue Requirement	41,722.90	43,228.50	46,153.97	47,316.09	48,487.66

15 Provisional Tariff for Bhusawal Unit-6

- 15.1.1.1 The Hon'ble Commission had directed the Petitioner vide its Order in Case No. 227 of 2022 dated 31 March 2023, to file a separate Petition for approval of provisional tariff of Bhusawal Unit 6 after incurring at least 75% of the estimated capital cost and in compliance to the regulatory provisions of the MERC MYT Regulations, 2019". The Petitioner envisages that Unit-6 of the Bhusawal is expected to get commissioned by 31.01.2025. Accordingly, the Petitioner has filed a Petition (Case No, 236 of 2023) for determination and approval of provisional tariff for Bhusawal Unit 6 (1 x 660 MW) for FY 2023-24 and FY 2024-25 on 08.12.2023.
- 15.1.1.2 The e-hearing of Case No. 236 of 2023 was conducted on 10.09.2024. As per directions of the Hon'ble Commission during e-hearing, the Petitioner has submitted the tariff for FY 2024-25 and FY 2025-26 considering capitalisation excluding FGD and SCR system of Rs.6026.51 Crore (Hard cost of Rs. 4855.62 Cr and IDC of Rs.1170.89 Cr).
- 15.1.1.3 Accordingly, the Petitioner had submitted tariff for FY 2024-25 and FY 2025-26 as under:

Table 205: Tariff of Bhusawal Unit 6 (1 x 660 MW) for FY 24-25 and FY 25-26 submitted in provisional tariff Petition (Rs. crore)

Sr. No.	Particulars	FY 2024-25	FY 2025-26
		Revised Projection	Revised Projection
1	Capacity (Fixed) Charges (Rs. Crore)	182.29	1,143.32
2	Energy Charge Rate ex-bus (Rs./kWh)	3.50	3.68

- 15.1.1.4 The Petitioner respectfully submits that in the Petition the Petitioner had sought approval for FY 2024-25 and FY 2025-26.
- 15.1.1.5 The broad assumptions were considered for working out the provisional tariff summarised below:
- Capital cost of Rs. 6026.51 Cr. (without considering capitalization amount related to FGD and SCR system)
 - SHR – 2139.05 kCal/kWh
 - Secondary fuel oil consumption – 0.50 ml/kWh
 - Auxiliary Consumption – 6.95% (inclusive of auxiliary consumption of FGD and SCR system)
 - Transit loss – 0.80%
 - Availability and PLF – 85%
 - Landed cost of coal – Rs. 4836/MT
 - GCV as billed – 3992 kCal/kg
 - GCV as received – 3342 kCal/kg

15.1.1.6 The Petitioner submit that the Order on Petition filed for determination of provisional tariff of Bhusawal unit 6 is yet to be issued by the Hon'ble Commission. Further, the Petitioner has been submitting Petition for tariff determination of its station under section 62. Hence, the Petitioner is submitting provisional tariff of Bhusawal unit 6 in accordance with provisions of MERC (MYT) Regulations 2024 for the period from FY 2025-26 to FY 2029-30 considering capital cost of Rs.6834.81 Crore, consist of Rs.4855.62 Crore as hard cost, IDC of Rs.1170.89 Crore and capitalisation towards FGD of Rs.808.30 Cr. However, the Petitioner respectfully submits that Petition for capital cost determination and determination of final tariff of Bhusawal unit 6 (1 x 660 MW) shall be submitted separately on completion of CoD. Hence, the Petitioner has projected provisional tariff for the period FY 2025-26 to FY 29-30 as shown below. The tariff format of Bhusawal unit 6 is attached as Annexure - 36 to this Petition.

Table 206: Provisional Tariff of Bhusawal Unit 6 (1 x 660 MW) for FY 25-26 to FY 29-30 (Rs. crore)

Sr. No.	Particulars	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
		Projection	Projection	Projection	Projection	Projection	Projection
1	Capacity (Fixed) Charges (Rs. Crore)	179.71	1,208.89	1,213.69	1,195.11	1,176.48	1,157.92
2	Energy Charge Rate ex-bus (Rs./kWh)	3.51	4.32	4.54	4.76	5.00	5.25

15.1.1.7 The Petitioner request the Hon'ble to approve the provisional tariff as tabulated above and allowed to levy till final tariff of Bhusawal unit 6 is determined by the Hon'ble Commission.

16 Other Matters sub-judice before APTEL

16.1.1.1 MSPGCL has preferred an appeal in APTEL (Appeal No 281 of 2017) against the Hon'ble Commission's Order in Case No. 46 of 2016 dated 30th August, 2016 and Case No. 38 of 2017 dated 3rd July, 2017 on the following issues:

- a) Disallowance of additional impact of Actuarial Valuation of Rs 225.46 crore for FY 2014-15 (due to pay revision) being considered a part of the O&M expenses by MERC. As per MSPGCL, the same needs to be approved separately in the truing up of ARR for FY 2014-15.
- b) Disallowance of full AFC at actual Availability for Parli TPS in FY 2014-15 and (including Parli Units 6 and 7) in FY 2015-16 by MERC citing that not enough was done to mitigate the risk of water scarcity persistent from previous 2 years.
- c) Non approval of the carrying cost on recovery of differential amount of Rs. 254.32 crore, which the MERC had approved in its Order in Case No. 46 of 2016.

16.1.1.2 MSPGCL has preferred an appeal in APTEL (Appeal No 303 of 2018) on the following issue:

- a) Consideration of Coal shortages as 'uncontrollable' factor for generation company and accordingly adjusting the Availability Factor

16.1.1.3 MSPGCL has preferred an appeal in APTEL (Appeal No 130 of 2019) against the Hon'ble Commission Order on MTR for the period FY 2016-17 to FY 2019-20 on the following issue:

- a) Non-consideration of Water shortage as force majeure.
- b) Arbitrary adjustment of LPS against IoWC for FY 16-17.
- c) Non consideration of cost recognized under other comprehensive income
- d) Non consideration of 20 days advance payment for coal for computation of normative IoWC
- e) Disallowance of additional Capitalization in FY 15-16, FY 16-17 and FY 17-18

16.1.1.4 MSPGCL has preferred an appeal in APTEL (Appeal No 353 of 2020) against the Hon'ble Commission's Order in Case No. 296 of 2019 dated 30th March, 2020 and on the following issues:

- a) Non-allowance of compensation for reactive energy charges.
- b) Erroneous computation of Interest on Working Capital for FY 2017-18 and FY 2018-19 which has been adjusted against late payment surcharge.
- c) Consideration of actual Interest on Working Capital as 'Nil' for FY 2017-18 and FY 2018-19
- d) Non consideration of loss of availability during FY 2017-18 on account of coal supply shortages; and
- e) Impact of Water Shortage at Paras and Chandrapur in FY 2018-19.

16.1.1.5 MSPGCL has preferred an appeal in APTEL (Appeal No 501 of 2023) against the Hon'ble Commission's Order in Case No. 227 of 2022 dated 31st March, 2023 and on the following issue:

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- a) Adjustment of LPS billed against actual loWC leading to lower net entitlement of loWC and thus lower true up amount - for FY 19-20, FY 20-21 and FY 21-22
 - b) issue regarding GCV margin norm remaining stringent as compared to actual GCV gap between “As Billed” to “As received” GCV.
- 16.1.1.6 MSPGCL has filed an appeal in the Supreme Court (Appeal No. 9408 of 2017) challenging the MERC Order. One of the issues under appeal in this case is the adjustment of Late Payment Surcharge (LPS) in the true-up for FY 2013-14.
- 16.1.1.7 M/s. WAACOX Energy Private Limited, had filed the petition on Dtd. 08.09.2021 before Hon’ble Commission against MSPGCL & MSEDCL under Section 86(1)(f) and other applicable provisions of the Electricity Act, 2003 (EA-2003). M/s. WAACOX is seeking generation compensation on account of grid unavailability as per provisions under Article 10.3.1 (b) of the Power Purchase Agreement (PPA). The petition is registered with Case No. 104 of 2021. However, after the due procedure, the Commission has dismissed the Case vide MERC Case 104 of 2021 on Dtd. 07.07.2022. Further, M/s. WAACOX Energy Private Limited challenged the Hon’ble Commission Order and approached the Hon’ble APTEL on Dtd. 30.08.2022 (Case No. APL-240/2023). Currently, the case is pending at APTEL.
- 16.1.1.8 The judgment on the Appeal is yet to be pronounced. Hence, MSPGCL reserves its right to its claim as per the outcome of the Appeal.

17 Prayers

17.1.1 The Petitioner respectfully prays the Hon'ble Commission to:

- i. Admit this Petition;
- ii. Allow Petitioner to submit additional information as may be required by the Hon'ble Commission
- iii. Grant an expeditious hearing of this Petition;
- iv. Hon'ble Commission in Order in case no 227 of 2022 & case no 132 of 2023, has allowed the issue in-principle and considering the marginal impact of these issues, allowed to claim the amount in the MYT Petition. Hence the Petitioner request to approve the impact on AFC along with carrying cost on such amount.
- v. Consider the submission made in context of **FY 2022-23** and approve the Annual Revenue Requirement and final truing up for the year, along with the relaxations in following key specific issues by exercising the powers available with the Hon'ble Commission under MYT Regulations 2019 for "Power to Relax"
 - f) Relaxation in target availability factor for Uran GTPS on account of Gas supply shortages,
 - g) Relaxation in Target availability for Khaperkheda Units # 1 to 4 on the basis of CPRI report,
 - h) Relaxation in Auxiliary consumption norm for Khaperkheda Units # 1 to 4, Chandrapur Units # 3 to 7, Paras Units # 3,4 & Parli Units # 6,7,8 on the basis of CPRI reports. With reference to the SHR of Koradi 6, the normative SHR may kindly be considered as 2456Kcal/Kwh (Guaranteed SHR x allowance of 4.5% from the design SHR)
 - i) Relax GCV As Received deviation as "GCV Billed less 750 kCal/kWh"
 - j) In view of CEA study submitted in respect of Koradi TPS (3x660 MW) allow actual O&M cost as claimed
- vi. Consider the submission made in context of **FY 2023-24** and approve the Annual Revenue Requirement and final truing up for the year, along with the relaxations in following key specific issues by exercising the powers available with the Hon'ble Commission for under MYT Regulations 2019 "Removal of Difficulties" & "Power to Relax"
 - a. Relaxation in target availability factor for Uran GTPS on account of Gas supply shortages,
 - b. Relaxation in Target availability for Khaperkheda Units # 1 to 4 on the basis of CPRI report,
 - c. Relaxation in Auxiliary consumption norm for Khaperkheda Units # 1 to 4, Chandrapur Units # 3 to 7, Paras Units # 3,4 & Parli Units # 6,7,8 on the basis of CPRI reports. With reference to the SHR of Koradi 6, the normative SHR may kindly be considered as 2456Kcal/Kwh (Guaranteed SHR x allowance of 4.5% from the design SHR)

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- d. Relax GCV As Received deviation as “GCV Billed less 750 kCal/kWh”.
 - e. In order to resolve Bill due date issue aroused after 2nd amendment to MYT 2019 dtd 08.06.2023, request Hon Commission to exercise power to relax and allow receivable period 75days for normative working capital calculation w.e.f 08.06.2023.
 - f. In view of CEA study submitted in respect of Koradi TPS (3x660 MW) allow actual O&M cost as claimed
 - vii. Consider the submission made in context of **FY 2024-25** and approve the revised Annual Revenue Requirement and provisional final truing up for the year, along with the relaxations in following key specific issues by exercising the powers available with the Hon’ble Commission under MYT Regulations 2019 for “Power to Relax”
 - g. Relaxation in target availability factor for Uran GTPS on account of Gas supply shortages,
 - h. Relaxation in Target availability for Khaperkheda Units # 1 to 4 on the basis of CPRI report,
 - i. Relaxation in Auxiliary consumption norm for Khaperkheda Units # 1 to 4, Chandrapur Units # 3 to 7, Paras Units # 3,4 & Parli Units # 6,7,8 on the basis of CPRI reports, Relaxation with reference to the SHR of Koradi 6, the normative SHR may kindly be considered as 2456Kcal/Kwh (Guaranteed SHR x allowance of 4.5% from the design SHR).
 - j. Relax GCV As Received deviation as “GCV Billed less 750 kCal/kWh”,
 - k. In view of CEA study submitted in respect of Koradi TPS (3x660 MW) allow actual O&M cost as claimed.
 - l. In order to resolve Bill due date issue aroused after 2nd amendment to MYT 2019 dtd 08.06.2023, request Hon Commission to exercise power to relax and allow receivable period 75days for normative working capital calculation.
 - viii. Consider the submissions made in the context of procurement of alternate power during FY 2024-25 in compliance to the directions from Government of Maharashtra under Section 11 of Electricity Act, 20023 and allow pass-through of the additional burden due to procurement of such alternate power as extraordinary expenses and revenue in ARR calculations.;
 - ix. Consider the submissions made in the context of approval of expenses for FY 2022-23 & FY 2023-24 towards Hydro Colony related expenses as per Regulation 49.1 (c) of the MYT Regulations, 2019 and accordingly approve the expenses over-and-above the normative O & M costs;
 - x. Not to consider deduction of LPS and interest on LPS amount from actual interest on working capital;
 - xi. Consider and allow loss of interest incurred due to implementation of Electricity (Late Payment of Surcharge and related matters) rule 2022, provisions for
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- liquidation of outstanding dues and allow normative loWC by adding loss of interest claims for True-up period FY 22-23, 23-24 Provisional true up FY 24-25 and MYT projection period FY 25-26 to 29-30.
- xii. Consider the submissions made in the context of approval of expenses for FY 2022-23 & FY 2023-24 towards IT related Opex costs as per Regulations 47.1 (g) & 49.1 (f) of the MYT Regulations, 2019 and accordingly approve the expenses over-and-above the normative O & M costs;
 - xiii. Consider the submissions regarding Fuel Utilisation in FY 2022-23 and FY 2023-24 and approve the Fuel Utilisation Plan for FY 2025-26 to FY 2029-30 submitted in the petition,
 - xiv. Consider the submissions made by MSPGCL in reference to normative parameters approved namely for Target AVF for Nashik, Bhusawal Unit # 3 and Khaperkheda Units # 1 to 4 , Auxiliary Consumption for Khaperkheda Units # 1 to 4, Chandrapur Units # 3 to 7, Paras , Parli units # 6,7,8 considering the CPRI reports and historical data and provide necessary relaxations sought in the performance parameters , by exercising the powers available with the Hon'ble Commission under MYT regulations 2024 for "Removal of Difficulties" & "Power to Relax" for the period FY 2025-26 to FY 2029-30;
 - xv. Consider the difficulties raised by MSPGCL in reference to provisions in Regulation 50.6 of MYT Regulations, 2019 regarding consideration of "As billed GCV" for Energy Charge computation and provide necessary clarifications towards consideration of total moisture for GCV (As Received Basis) calculation consideration and remove the difficulty in working out GCV of coal for calculation of energy charge , by exercising the powers available with the Hon'ble Commission under MYT regulations 2024 for "Removal of Difficulties" for the period FY 2022-23 to FY 2024-25;
 - xvi. Consider the submissions made in context of projections for Annual Revenue Requirements and projected tariff for the years under 5th Control Period i.e. FY 2025-26 to FY 2029-30 and approve the same;
 - xvii. Consider the specific submissions made in the context of projections for
 - g. Claim for expenses towards Hydro Colony related expenses as per Regulation 50.1 (c) of the MYT Regulations, 2024
 - h. Claim for expenses towards IT related Opex costs as per Regulations 48.1 (g) & 50.1 (f) of the MYT Regulations, 2024
 - i. Claims for expenses towards "Ash Transportation costs as per directions from MoEF, CC and MoP
 - j. Approve the expenses prepared for preparation of Flexibilisation of units as claimed at **para 14.4.1 & Para 14.4.10** and accordingly approve the expenses over-and-above the normative O & M costs;
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- k. Approve the special allowance for Uran GTPS & Hydro power stations based on operational norms as specified under the MYT Regulations.
 - l. Grant the special allowance for eligible Thermal power plants by adopting an approach of providing relaxed performance norms and applying the prevailing O&M cost methodology as per the submission and with the permission to surrender of the special O&M allowance prior to the MSEDCL MTR ,
 - xviii. Consider the submissions made in the context of the issue related to non-installation of “Class 0.2S” Current Transformers , as provided under the Section 78.1.11 of the State Grid Code,2020 Part-H Metering Code , for measurement of energy at Generation- Transmission (G-T) interface point and its adverse impact on measurement of energy sent out at <G> to <T> interface & thus on Auxiliary Power Consumption as well as Availability Factor computations for MSPGCLs’ power stations on the basis of specific observations for Koradi Units # 8 to 10 and issue necessary directions to State Transmission Utility (STU) to expedite actions for installation of “Class 0.2 S” CTs at all interface points and also to provide access to metered data for the AMR meters installed for better monitoring & control of generation output in reference to the Scheduled generation;
 - xix. Consider the submissions made in the context of erroneous measurement of energy at Koradi Units # 8 to 10 on account of non-installation of “Class 0.2S” CTs at <G> to <T> interface points and allow the claim towards loss of opportunity due to lower measurement of net sent out generation & resultant higher % Auxiliary Consumption and lower Plant Availability Factor;
 - xx. Consider the submissions made in the context of recovery of expenses incurred by MSPGCL for FY 2022-23 & FY 2023-24 on the Solar power plants under Chief Minister Agricultural Feeder Scheme and approve the same;
 - xxi. Consider the submissions made regarding finalisation of liquidated damages for Bhusawal Units # 4,5; Koradi Units # 8 to 10; Parli Unit # 8 project works and approve the differential capital cost & corresponding recoveries of differential fixed charges for the period since COD for the respective units along with the carrying cost. Also allow extension for cut-off date upto 31.03.2025 considering difficulties submitted.
 - xxii. Allow MSPGCL to submit relevant data post reconciliation of issues related to LPS along with any reworking of previous year True-up amount;
 - xxiii. Allow normative O&M expenses based on past actual O&M expenses rather than True-up amounts;
 - xxiv. Allow the incremental O&M expenses for Koradi Unit 8-10 for FY 2020-21 and FY 2021-22 considering CERC norms;
 - xxv. Consider CAPEX rolling plan for FY 2025-26 to FY 2029-30 submitted as annexure also condone the delay in submission of CAPEX plan;
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- xxvi. Consider the submissions made regarding directives to be given to MSEDCL regarding resolution of pending billing reconciliation and previous period LPS issues and issue appropriate directives;
- xxvii. Consider the submissions made in the context of under-recovery of part of approved fixed costs and lease rent for Ghatghar PSS for FY 2017-18 & FY 2018-19 due to non-payment of the same from MSEDCL despite of clarifications given by MSPGCL and thus requests to direct MSEDCL for payment of the same along with permission to MSEDCL for recovery of the same in their ARR;
- xxviii. Consider the submissions made in the context of compensation claims from TPC-G as per the MERC order dated 03.11.022 in case No. 29 of 2022;
- xxix. Consider the submissions made in the context of recovery of "RLDC Legacy charges" claimed by MSLDC for Oct'2023 to Sept'2024 and allow the same as pass-through expense for FY 2024-25 & accordingly consider the same in the provisional true-up for FY 2024-25;
- xxx. Condone any shortcomings/ deficiencies in the petition and allow MSPGCL to submit additional information/ data at a later stage as may be required;
- xxxi. Provide the workable excel model used by the Hon'ble Commission for approval of True up amount and tariff of the Petitioner.



Petitioner

Chief Engineer – RCD
MSPGCL