

Executive Summary

For MSPGCL's Petition for True up of FY 2017-18 and FY 2018-19, Provisional True up for FY 2019-20 and Approval of MYT for the Control period FY 2020-21 to FY 2024-25

1.1. Background and Scope of Petition

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 13421 MW as on 31st March, 2018.

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 2017-18 and 2018-19 - based on audited accounts and Tariff Regulations 2015.
- b. Provisional True-up for FY 2019-20 - based on half yearly actuals (April to September) and projections for the balance period (October to March) and Tariff Regulations 2015.
- c. Projections of Aggregate Revenue Requirement and Multi-Year Tariff (MYT) for the period FY 21 to FY 25 based on principles provided in the Tariff Regulations 2019 and appropriate assumptions detailed in this petition.

1.2. Truing up for FY 2017-18, FY 2018-19 and Provisional True-up for FY 2019-20

Operational Performance

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 and low power requirement from MSEDCL. Besides Koradi Unit-6 had been under outage till Jan 2019 to undertake works for Energy Efficient Renovation & Modernisation of the unit for extension of its life. Stations at Chandrapur and Parli

faced acute water shortages during 2017-18. On account of the above, the net generation has been lower than the approved generation.

Energy Charges: For the purpose of truing-up of energy charges for FY 2017-18 and FY 2018-19, MSPGCL has worked out the energy charges for the actual generation based on actual price and CV of fuels and normative performance parameters. For FY 2019-20, the actual performance of six months (April - September) has been submitted along with projected performance for the balance six months.

Fixed Charges: For the purpose of fixed charges, MSPGCL has submitted the details of actual capitalization of capital expenditure in FY 2017-18 and FY 2018-19. The parameters for fixed charges have been worked out in the following manner:

- a. O & M expenses - actual expenses compared with the norms. Water charges have been considered in addition to the O & M expenses. Allocation of Head office (HO) has been considered. Impact of pay revision has been considered.
- b. Depreciation- calculated on the basis of approved closing balance for 2016-17 and actual capitalization as per books of accounts.
- c. Interest on loans- calculated on the basis of approved closing loan balances for 2016-17 and interest rate as per actual loan portfolio
- d. Interest on working capital - based on norms in the regulations and interest rate as per approach prescribed in the regulations
- e. ROE - as per rates approved in the previous orders (7.5% for 2017-18 and 15.5 % thereafter)
- f. Tax - as per actuals for 2017-18 and 2018-19 and projections for 2019-20.
- g. NTI - as per accounts, however, reduced for certain elements as detailed in the petition
- h. Expenses for units under RSD are detailed separately

Despite the prayers for relaxation in performance norms, MSPGCL has considered normative parameters for working out availability based disallowance and impact of fuel shortages. The same is without prejudice to the appeals preferred by MSPGCL before ATE/Court of Law. Any impact pursuant to orders by such authorities will be considered in the subsequent petitions.

Besides the above, MSPGCL has also included the impact of following elements:

- a. Recovery of Reactive Energy Charges since FY 2013-14.
- b. Double deduction of loss on foreign exchange variance (Rs 94.09 crore) in O&M expenses approved for FY 2015-16

- c. Double deduction of provision for doubtful advances in 2016-17 (Rs. 37.97 Crore)
- d. Truing Up of A & G expenses for implementation of “Mukhyamantri Solar Agricultural Feeder Scheme” as per directions in Case 172 of 2017 for 2017-18 and 2018-19
- e. LD amount finalization for Khaperkheda Unit 5.
- f. Impact of flooding on hydro stations and expenditure required for restoration works in 2019-20
- g. Relaxation in auxiliary consumption of Paras 3-4 and Parli 6-7 units on account of operations of tube type coal mills for 2017-18 and 2018-19
- h. Impact of pay revision

The overall true-up for 2017-18, 2018-19 together with the provisional true-up for 2019-20 and carrying cost is provided in the table below:

Table: Actual Expense and Final Entitlement for FY 2017-18 (Rs Crore)

Particulars	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	767.49				767.49
Interest on Loan	2,190.97				2,190.97
Depreciation	1,897.33				1,897.33
O&M expenses	2,454.08	2,851.82	397.74	132.58	2,586.66
Water Charges		194.00			194.00
Interest on Working Capital	514.67	598.43	83.76	27.92	542.59
Less: Non-Tariff Income		84.49			84.49
Add: GST Claim					19.45
Annual Fixed Charges					8,114.01
Income Tax		50.78			50.78
Idle Capacity Charges	35.63				35.63
Pay Revision Impact					-
Hydro Lease Rent		514.50			514.50
Fuel Costs	11,258.28	11,368.25	109.51	36.50	11,295.25
Aggregate Revenue Requirement					20,010.23
AFC Reduction					1,772.22
Net Revenue Requirement					18,238.01
Revenue from sale of power		18,311.17			18,311.17
Revenue loss due to			59.29	19.76	19.76

Particulars	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
higher auxiliary consumption					
Revenue for true-up					18330.93
Revenue Gap/ (Surplus)					(92.92)

Table: Actual Expense and Final Entitlement for FY 2018-19 (Rs Crore)

Particulars	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	1,625.39				1,625.39
Interest on Loan	2,012.09				2,012.09
Depreciation	1,951.65				1,951.65
O&M expenses	2,566.32	2,777.86	211.54	70.51	2,636.83
Water Charges		183.28			183.28
Other Charges		345.98			345.98
Interest on Working Capital	536.74	637.81	101.07	33.69	570.43
Less: Non-Tariff Income		99.13			99.13
Add: GST Claim					25.86
Annual Fixed Charges					9,252.48
Income Tax		-			-
Idle Capacity Charges	33.64				33.64
Pay Revision Impact					-
Hydro Lease Rent		616.93			616.93
Fuel costs	11,969.43	12,108.85	139.42	46.47	12,015.91
Aggregate Revenue Requirement					21,918.96
AFC Reduction					2,039.52
Net Revenue Requirement					19,879.44
Revenue from sale of power		19,596.47			19,596.47
Revenue loss due to higher auxiliary consumption			85.78	28.59	28.59
Revenue for true-up					19625.06
Revenue Gap/ (Surplus)					254.38
Revenue Gap/ (Surplus) approved in provisional true-up					(437.95)
Net Revenue Gap/ (Surplus) approved after final true-up					692.33

Other Elements included in True-up

The other aspects on which true-up has been asked in the petition are summarised below:

Table: Other Elements for Truing up (Rs Crore)

Other Additions	FY 17-18 (Rs Crore)	FY 18-19 (Rs Crore)
LD Khaperkheda finalization	40.82	
Double deduction of loss on foreign exchange variance in O&M expenses	37.08	
Double deduction of provision for doubtful advances	13.34	
Reactive Energy compensation since FY 2013-14	138.34	
Truing Up of A & G expenses	1.24	1.98
Total Others	230.82	1.98

Carrying cost on the true-up amount

MSPGCL has proposed the following calculations for working out the carrying cost till Sept. 2020 on the true-up amounts for the years:

Table: Summary of True-up and Carrying cost on revenue gap/surplus (Rs. crore)

FY	Description	Carrying Cost					Total Including Carrying Cost
		Year	FY 18	FY 19	FY 20	FY 21	
		Rates	10.18%	9.89%	9.89%	9.89%	
FY 18	Final True-up FY 18	(92.92)	(4.73)	(9.66)	(10.61)	(5.83)	(123.75)
	Other Additional True-up	230.82	23.50	25.15	27.64	15.19	322.30
FY 19	Final True-up FY 19	692.33		34.24	71.86	39.48	837.90
	Other Additional True-up	1.98		0.10	0.21	0.11	2.40
Total		832.21					1038.84

Provisional True-up for 2019-20

The summary of ARR and provisional true-up for FY 2019-20 is provided in the table below:

Table: Summary of ARR for FY 2019-20 (Rs. crore)

Particulars	Normative	Actual	Net entitlement
	A	B	C
Expenses side summary			
Return on Equity	1,679.25		1,679.25
Interest on Loan	1,897.72		1,897.72
Depreciation	2,016.08		2,016.08
O&M expenses	2,683.52		2,683.52
Water Charges		178.33	178.33
Other Charges		360.75	360.75
Interest on Working Capital	680.57		680.57
Less: Non-Tariff Income		99.13	99.13
Add: GST Claim			31.26
Annual Fixed Charges			9,428.34
Income Tax		-	-
Idle Capacity Charges	31.02		31.02
Pay Revision Impact		487.16	487.16
Hydro Lease Rent		580.71	580.71
Fuel costs	16,785.91		16,785.91
Aggregate Revenue Requirement			27,313.14
AFC Reduction \$			1,159.56
Net Revenue Requirement			26,153.59
Revenue from sale of power ^		25,807.58	25,807.58
Revenue Gap/(Surplus)			346.01

^Proposed Revenue is calculated based on half yearly actual and proposed rates/generation for the second half. For fixed charges, actual availability is considered for Apr-Sep and normative availability for Oct-Mar.

\$ AFC reduction based on normative and projected availability

1.3. MYT for the control period 2020-21 to 2024-25

Key concerns for the MYT period

- Clarification required on the issue of Moisture correction in the GCV of coal based on considerate views taken by CERC and other SERCs.
- Extension of period of capitalization for the newly commissioned units
- Approval of capital expenditure for implementation of FGDs in the new stations

Fuel Utilisation Plan

As per Regulation 40 of MERC Tariff Regulations 2019, 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 (~3 MMT per annum). Besides, the above, the plan for coal beneficiation to the extent of ~17 MMT has also been envisaged to improve the quality of coal. The same is likely to improve the operations of the stations.

Operational Performance and MYT for the control period

With the envisaged improvement in availability of coal, MSPGCL has projected the performance of the stations at normative levels during the control period.

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

- a. O & M expenses - actual expenses for the last three years considered and escalated at 4.27%. Impact of pay revision has been considered separately since the same is not included in the base expenses. Rationale for consideration of actual O & M expenses is provided in the petition.
- b. Depreciation- calculated on the basis of projected closing balance for 2019-20 and proposed capitalization.
- c. Interest on loans- calculated on the basis of loan portfolio as existing in FY 2019-20.
- d. Interest on working capital - based on norms in the regulations and interest rate as per approach prescribed in the regulations
- e. ROE - as per tariff regulations (14% as base ROE grossed up with MAT rate)
- f. Tax - MAT rate has been considered for grossing up of ROE.
- g. NTI - as per proposed income for 2019-20

The Summary of ARR for the 4th Control Period for the existing units is provided in the tables below:

Table: Projected station wise variable charges (Rs./ kWh)

Particulars	FY 21	FY 22	FY 23	FY 24	FY 25
Bhusawal	4.04	4.17	4.29	4.42	4.55
Chandrapur	2.84	2.93	3.02	3.11	3.20
Khaperkheda	2.96	3.04	3.14	3.23	3.33
Koradi	3.07	3.17	3.26	3.36	3.46
Nashik	3.38	3.48	3.59	3.69	3.80
Uran	2.59	2.66	2.74	2.83	2.91
Paras Units 3 & 4	3.02	3.11	3.20	3.30	3.40
Parli Units 6 & 7	3.88	3.99	4.11	4.24	4.36

Particulars	FY 21	FY 22	FY 23	FY 24	FY 25
Khaperkheda Unit 5	2.63	2.71	2.79	2.87	2.96
Bhusawal Units 4 & 5	3.31	3.41	3.51	3.61	3.72
Koradi Units 8, 9, 10	2.49	2.56	2.64	2.72	2.80
Chandrapur Units 8 & 9	2.67	2.75	2.83	2.91	3.00
Parli Unit 8	3.72	3.83	3.95	4.06	4.19

Table: Projected station wise Annual Fixed Charges (Rs. crore)

Particulars	FY 21	FY 22	FY 23	FY 24	FY 25
Bhusawal	171.56	177.65	183.43	197.90	204.65
Chandrapur	1,163.19	1,356.23	1,532.73	1,680.11	1,716.19
Khaperkheda	646.64	692.79	819.74	762.95	775.46
Koradi	401.14	420.38	438.35	456.34	464.86
Nashik	483.54	517.50	536.60	563.38	750.09
Uran	195.53	210.88	229.25	304.58	333.89
Paras Units 3 & 4	602.84	608.65	625.77	625.92	534.26
Parli Units 6 & 7	573.15	583.22	594.92	511.97	517.79
Khaperkheda Unit 5	592.10	601.84	622.00	640.05	624.54
Bhusawal Units 4 & 5	1,189.88	1,200.89	1,258.83	1,311.63	1,297.75
Koradi Units 8, 9 & 10	2,395.31	2,397.71	2,489.55	2,571.81	2,525.38
Chandrapur Units 8 & 9	1,262.21	1,288.30	1,347.34	1,401.07	1,387.89
Parli Unit 8	419.08	427.43	432.22	437.29	435.49
Pune SHP	372.69	381.90	394.57	393.87	396.15
Bhira	10.35	11.10	11.78	11.99	12.21
Koyna	448.15	463.98	479.66	474.03	476.46
Tillari	18.19	19.48	20.85	21.87	22.53
Total	10,945.54	11,359.92	12,017.57	12,366.76	12,475.60

Summary of Total ARR for the stations

Particulars	FY 21	FY 22	FY 23	FY 24	FY 25
Bhusawal	701.45	723.44	745.60	776.93	801.05
Chandrapur	4,691.79	4,990.68	5,276.22	5,535.90	5,687.66
Khaperkheda	2,316.23	2,412.47	2,591.02	2,587.36	2,654.60
Koradi	1,127.27	1,168.29	1,208.70	1,249.81	1,282.13
Nashik	1,815.18	1,889.09	1,949.33	2,018.50	2,248.86
Uran	911.38	948.20	988.69	1,086.81	1,139.58
Paras Units 3 & 4	1,622.20	1,658.59	1,707.20	1,739.80	1,681.56
Parli Units 6 & 7	1,882.68	1,932.03	1,984.20	1,942.93	1,991.68
Khaperkheda Unit 5	1,512.28	1,549.63	1,598.22	1,645.55	1,660.21
Bhusawal Units 4 & 5	3,504.61	3,585.06	3,714.52	3,841.00	3,903.00
Koradi Units 8, 9 & 10	5,840.01	5,945.76	6,144.04	6,335.93	6,402.42
Chandrapur Units 8 & 9	3,128.98	3,211.08	3,327.80	3,440.94	3,488.96

Particulars	FY 21	FY 22	FY 23	FY 24	FY 25
Parli Unit 8	1,052.69	1,080.06	1,104.42	1,129.66	1,148.63
SHP	372.69	381.90	394.57	393.87	396.15
Bhira	10.35	11.10	11.78	11.99	12.21
Koyna	448.15	463.98	479.66	474.03	476.46
Tillari	18.19	19.48	20.85	21.87	22.53
Total	30,956.13	31,970.83	33,246.81	34,232.87	34,997.70

Table: Summary of ARR for 4th Control Period for the existing stations (Rs. crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Variable charges					
Fuel Cost including other variable costs	20,010.59	20,610.91	21,229.24	21,866.11	22,522.10
Total Variable costs	20,010.59	20,610.91	21,229.24	21,866.11	22,522.10
Capacity charges					
O&M expenses	2,886.66	3,002.51	3,123.00	3,248.51	3,378.94
Pay Revision	259.29	270.36	281.91	293.94	306.49
Other Charges	376.15	392.22	408.96	426.43	444.64
Water Charges	185.95	193.89	202.17	210.80	219.80
Interest on long term loans and other finance charges	1,850.07	1,782.16	1,791.11	1,771.93	1,556.92
Interest on working capital	754.42	777.11	807.29	833.75	857.22
Depreciation	2,203.52	2,407.27	2,680.62	2,702.84	2,805.79
Return on equity	1,961.30	2,077.70	2,265.82	2,443.94	2,479.38
Lease Rentals	567.32	555.84	555.84	533.76	525.55
Income tax					
Less NTI	99.13	99.13	99.13	99.13	99.13
Total capacity charge	10,945.54	11,359.92	12,017.57	12,366.76	12,475.60
Aggregate revenue requirement	30,956.13	31,970.83	33,246.81	34,232.87	34,997.70

Prayers:

The Petitioner respectfully prays the Hon'ble Commission to:

- i. Admit this Petition;
- ii. Grant an expeditious hearing of this Petition;
- iii. Consider the submissions made in context of following issues in FY 2017-18 and approve the ARR & truing up for the year
 - a. Relaxation in target availability factor for Uran GTPS on account of Gas supply shortages,

- b. Relaxation in Target availability for Chandrapur TPS & Paras TPS for FY 2017-18 on account of water supply shortage,
 - c. Relax the norms for Auxiliary consumption for Paras 3-4 and Parli units 6-7 towards additional auxiliary consumption of 0.8% for operations of tube type coal mills for 2017-18 and 2018-19.
 - d. Consider GST on O & M as a Change in Law event and allow MSPGCL to recover the incremental expenses
 - e. Relax the O &M norms based on submissions in the petition and allow recovery of actual O &M expenses
- iv. Consider the submissions made in context of following issues in FY 2018-19 and approve the ARR & truing up for the year
- a. Relaxation in target availability factor for Uran GTPS on account of Gas supply shortages,
 - b. Relaxation in Target availability for Chandrapur TPS for FY 2018-19 on account of water supply shortage,
 - c. Consider the applicability of GST on Lease rent as “Change in Law” and accordingly allow pass through of the GST paid on Lease rent on Hydro Power Stations;
 - d. Consider GST on O & M as a Change in Law event and allow MSPGCL to recover the incremental expenses.
 - e. Relax the O &M norms based on submissions in the petition and allow recovery of actual O &M expenses
- v. Consider the submissions as detailed in this petition in respect of capital schemes approved by Hon’ble Commission through ROE and approve the schemes to be pursued as normal capital expenditure/capitalization
- vi. Consider the submission made in context of FY 2019-20 and approve the revised ARR and provisional truing up for the year
- a. Target availability for Uran GTPS on account of gas supply shortage,
 - b. Consider the Force Majeure conditions in the hydro stations on account of flooding and allow the proposed one time capital expenses along with the R & M expenses.
- vii. Approve the impact of pay revision as detailed in the petition and allow MSPGCL to recover the same in the ensuing years as per actuals.
- viii. Provide appropriate clarifications regarding treatment of moisture in consideration of GCV for working out the energy charges of the stations

- ix. Consider the Fuel Utilisation proposed for FY 2020-21 to FY 2024-25 and allow flexibility to MSPGCL to optimize the usage based on actual availability of coal.
- x. To allow MSPGCL to carry out the pending approved capital expenditure for the new units at Koradi, Chandrapur and Parli and complete capitalization before 31.03.2021;
- xi. Allow MSPGCL to recover the following true up amounts
 - a. The pending true up amount of FY 2015-16 and FY 2016-17 as detailed in the true-up section in the petition
 - b. The approved final true-up for FY 2017-18, FY 2018-19, provisional true up for FY 2019-20 & additional true up requirement as submitted in this petition
 - c. Issue directives to the appropriate agency to pay for the additional true up requirement submitted in this petition towards unrecovered Reactive Energy Charges since FY 2013-14
 - d. Allow recovery of true-up amount through monthly billing during FY 2020-21 along with carrying cost and issue appropriate directives to MSEDCL for the payment of the same;
- xii. Approve the Annual Revenue Requirement and Multi-year Tariff as proposed in the petition
- xiii. Condone any shortcomings/ deficiencies in the petition and allow MSPGCL to submit additional information/ data at a later stage as may be required;
- xiv. Provide the workable excel model used by the Hon'ble Commission for approval of True up amount and tariff of the Petitioner.