
**Multi-Year Tariff and ARR of FY 2019-20
for Paricha 1x110 MW (UPRVNL)**



Uttar Pradesh Electricity Regulatory Commission
Lucknow

Petition No. 1527 of 2019

And

Petition No. 1932 of 2022

Filed by

Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVNL)

IN THE MATTER OF:

MYT FOR PARICHA 1X110 MW (FY 2019-20 TO FY 2023-24)

Lucknow

Dated: 29.05.2023

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**Multi-Year Tariff and ARR of FY 2019-20
for Paricha 1x110 MW (UPRVNL)**



Table of Contents

1. BACKGROUND & RECORD OF PROCEEDINGS.....	4
1.1 Background.....	4
1.2 Regulatory Framework.....	10
1.3 UPRVNL MYT Petition for the Control Period (FY 2019-20 To FY 2023-4)..	11
1.4 UPPCL Counter Affidavit dated 23.01.2023 and UPRVNL reply dated 06.03.2023.....	12
1.5 Scrutiny of the Petition	13
1.6 Tariff Design	14
1.7 MYT for FY 2019-20 to FY 2023-24: Capacity (Fixed) Charges	15

Petition Nos. 1527 of 2020 and 1932 of 2023

BEFORE

UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

LUCKNOW

Date of Order: 29.05.2023

Present:

Hon'ble Shri Raj Pratap Singh, Chairman

Hon'ble Shri Vinod Kumar Srivastava, Member (Law)

IN THE MATTER OF: PARICHA Unit 2 (1X110 MW) PETITION FOR
DETERMINATION OF MYT FOR FY 2019-20 to FY 2023-24.

M/s Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL)
SHAKTI BHAWAN, 14-ASHOK MARG, LUCKNOW.

.....Petitioner

Vs

1. Uttar Pradesh Power Corporation Limited (UPPCL)
SHAKTI BHAWAN, 14-ASHOK MARG, LUCKNOW
2. Madhyanchal Vidyut Vitran Nigam Ltd.
4-A, Gokhale Marg, Lucknow - 226001
3. Poorvanchal Vidyut Vitran Nigam Ltd.
Bhikharipur, 132KV Sub-Station, Poorvanchal Vidyut Bhawan, P. O. Diesel
Locomotive Works, Varanasi - 221004
4. Paschimanchal Vidyut Vitran Nigam Ltd.
Victoria Park, Meerut-250001
5. Dakshinanchal Vidyut Vitran Nigam Ltd.
Urja Bhawan, 220KV Sub-Station Mathura bypass Road, Agra - 282007
6. Kanpur Electricity Supply Co. Ltd.
KESA House, 14/71, Civil Lines, Kanpur - 208001

.....Respondent(s)

The following were present:

1. Shri Rajiv Srivastava, Advocate, UPRVUNL
2. Shri Shailendra Tiwari, Consultant, UPRVUNL
3. C.E(Commercial), UPRVUNL
4. Shri Hari Shyam, S.E(Commercial), UPRVUNL
5. Shri Raj Kumar Verma, A.E(Commercial), UPRVUNL
6. Shri Nitish Gupta, Counsel, UPPCL
7. Ms. Parichita Chowdhury, Advocate, UPPCL
8. Shri Deepak Raizada, C.E (PPA), UPPCL
9. Shri Haroon Aslam, S.E(PPA), UPPCL
10. Shri Avdhesh Kumar Verma, UPRVUP
11. Shri Rama Shankar Awasthi, Consumer



**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



ORDER

(Date of Public Hearing- 16.03.2023)

1. BACKGROUND & RECORD OF PROCEEDINGS

1.1 Background

1.1.1 Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (hereinafter referred to as the 'UPRVNL' or the 'Petitioner'), is a company incorporated on 25th August 1980 with the principal object of generating electricity. UPRVNL is a wholly owned company of the Government of Uttar Pradesh. Pursuant to the Uttar Pradesh Electricity Reforms Act, 1999 and the statutory transfer scheme notified there under, the Petitioner was vested with the activities of generation and sale of electricity from thermal generation assets in the State of Uttar Pradesh. All the electricity generated by the Petitioner is sold to Uttar Pradesh Power Corporation Limited (hereinafter referred to as the 'UPPCL'), which under the aforementioned transfer scheme is vested with the transmission and distribution of electricity in the State of Uttar Pradesh.

1.1.2 UPRVNL owns, maintains, and operates the following generating stations:

**Table 1: Present Installed Capacity and Derated capacity of UPRVNL
Generating Stations**

S No	Thermal Power Station	Unit No.	Installed Capacity	Derated Capacity	Date of Commercial Operation
1	Anpara – A	1	210 MW	210 MW	01-Jan-87
2		2	210 MW	210 MW	01-Aug-87
3		3	210 MW	210 MW	01-Apr-89
4	Anpara – B	4	500 MW	500 MW	01-Mar-94
5		5	500 MW	500 MW	01-Oct-94
6	Obra – B	9	200 MW	200 MW	15-Mar-80
7		10	200 MW	200 MW	06-Mar-79
8		11	200 MW	200 MW	14-Mar-78
9		12	200 MW	200 MW	29-May-81
10		13	200 MW	200 MW	29-Jul-82
11	Harduaganj	7	110 MW	110 MW	01-Aug-78
12	Harduaganj Extn.	8	250 MW	250 MW	01-Feb-12
13		9	250 MW	250 MW	10-Oct-13
14	Parichha	2	110 MW	110 MW	25-Feb-85
15	Parichha Extn	3	210 MW	210 MW	24-Nov-06
16		4	210 MW	210 MW	01-Dec-07
17	Parichha Extn.II	5	250 MW	250 MW	17-Jul-12
18		6	250 MW	250 MW	18-Apr-13
19	Anpara D	6	500 MW	500 MW	08-May-2016
20		7	500 MW	500 MW	18-Oct-2016
21	Harduaganj Extension-II	10	660 MW	660 MW	09-Feb-2022

**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



In addition to the above the following plants or Units are scheduled to be added to the generation capacity of UPRVNL in the upcoming control period:

Sl. No.	Project	Location	Capacity Addition
1	Obra 'C' Extension	Obra, Sonbhadra	2x660 MW
2	Panki Extension	Panki, Kanpur	1x660 MW
Total			1980 MW

1.1.3 The Petitioner vide Petition No. 1527/2019 has filled one consolidated Petition on 06th October 2019 for the Multi-Year Tariff and annual revenue requirement for the Period of FY 2019-20 to FY 2023-24 for all Thermal Power Generating Stations based on the normative parameters and MYT Generation Regulations 2019. Subsequently, the Petitioner made six additional submissions on 03rd January 2020, 14th October 2020, 02nd September 2021, 02nd June 2022, 2nd Dec 22 and 28th Dec'22.

1.1.4 The chronology and date of filing main petition and subsequent additional submissions is detailed in the table below:

Table 2

Submission	Date of submission	Details of submission
Main Multi Year Tariff petition	06-11-2019	MYT Petition filed for Determination of ARR and Tariff for Anpara 'A' TPS, Anpara 'B' TPS, Anpara 'D' TPS, Obra 'B' TPS, Harduaganj #7 TPS, Harduaganj Extension TPS, Parichha #2 TPS, Parichha Extension TPS, Parichha Extension II TPS for existing UPRVNL TPS and Provisional Tariff for Harduaganj Extension Stage-II TPS.
Additional Submission-1	03-01-2020	Additional Submission-1 was made before the Commission with addition of Projected additional capitalization as below: <ul style="list-style-type: none"> Anpara-A: Rs. 448.06 Crore for installation of FGD and ESP in FY 2022-23 Anpara B: Rs. 662.34 Crore for installation of FGD and ESP in FY 2022-23 Anpara D: Rs. 556.08 Crore for installation of FGD and Nox in FY 2021-22 Harduaganj Extension: Rs. 59.83 Crore for installation of FGD and Nox in FY 2019-20

**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



Submission	Date of submission	Details of submission
		<ul style="list-style-type: none"> Parichha Extension: Rs. 105.86 Crore for installation of FGD and Nox in FY 2022-23
Additional Submission-2	14-10-2020	<p>Additional Submission-2 was made before the Commission with addition of Projected additional capitalization as below:</p> <ul style="list-style-type: none"> Anpara A: Rs. 50.32 Crore for Ash Dyke Height Raising work in FY2019-20 (Rs. 12.04 Cr) and FY 2020-21 (Rs. 38.28 Cr) Anpara A: Rs.283.50 Crore for Special Allowance in FY 2019-20 to FY 2023-24 (630x9.00 Lak/MW). Obra B: Rs. 1,546.71 Crore for Renovation and Modernization (R&M) work balance work out of Rs. 2849.89 Cr as approved by ETF. Parichha Extension S-II: Rs. 11.79 Crore for Purchase of Mandatory Spares as per UPERC order dated 26.10.2017. Harduaganj Unit No. 7 revised MYT Petition due to change in GFA values in True-up Petition.
Additional Submission-3	02-09-2021	<p>Additional Submission-3 was made before the Commission as below:</p> <p>Anpara D: At the time of filing of the petition, the projected capital expenditure up to FY 2023-24 based on projections were available with the Petitioner on the basis of which, the tariff determination petition was filed before the Hon'ble Commission. Further, since the Financial Year 2020-21 has completed, and the Petitioner has finalized the total capital expenditure for Financial Year 2019-20 based on Audited Accounts and Financial Year 2020-21 based on provisional accounts of Anpara D TPS.</p> <p>Harduaganj Extension Stage-II: Harduaganj Extension Stage-II provisional tariff application submitted before the Hon'ble Commission was based on expenditure incurred till 30th September 2020. Since now the Financial Year 2020-21 has completed, and Petitioner hereby submit provisional tariff application based on Statutory Auditor certificate as on 31st March 2021 and</p>

**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



Submission	Date of submission	Details of submission
		Tariff projections for the period FY 2021-22 to FY 2023-24.
Additional Submission-4	02-06-2022	Harduaganj Extension Stage-II provisional tariff application submitted before the Hon'ble Commission was based on expenditure incurred 31st March 2021. Since now the Harduaganj Extension Stage —II (660 MW) has achieved the COD on 9th February 2022, petitioner submits the expenditure up to COD based on the Statutory Auditor certificate as on 8th February 2022 (as required under clause 15.3 of UPERC Generation Regulations, 2019) and Tariff projections for the period FY 2022-23 to FY 2023-24.
Re-submission of MYT Petition	02-12-2022	As per direction of Hon'ble Commission on date 03.11.2022 during hearing on Petition No. 1527/2019 for ARR & Multi Year Tariff of various Thermal Power Stations of UPRVNL for FY 2019-20 to FY 2023-24 including Provisional Tariff of Harduaganj Extension Stage —II (1x660 MW) to re-submit the ARR & MYT Petitions Station wise considering the closing number based on True-up Order dated 05-09-2022 and 03-10-2022 with separate covering letter, accordingly UPRVNL has submitted MYT Petition for the period FY 2019-20 to FY 2023-24 based on below: <ul style="list-style-type: none"> • FY 2019-20 and FY 2020-21 based on the Audited Accounts • FY 2021-22 based on the provisional accounts. • FY 2022-23 and FY 2023-24 based on the Projections
Additional Submission 1	28-12-2022	The Hon'ble Commission is requested to permit recovery of Statutory charges like water cess, water cost, payment to Pollution Control Board, rates and taxes, Regulatory fees, Tax on income including Fringe Benefit Tax, Forest cess, Pay Commission revision impact, other fuel related costs, station supplies, lubricants and consumables critical to the generating stations, Gratuity and Provident fund, fees payable to UPERC/CERC/CEA/UPSLDC etc.

1.1.5 Prayers

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**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



- a) To accept the Re-submission of the Multi-Year Tariff of Paricha 1X110 MW TPS for the Control Period comprising FY 2019-20 to FY 2023-24.
- b) To approve Annual Revenue Requirement for Paricha for each of the financial years for the period of FY 2019-20 to FY 2023-24.
- c) Permit recovery of expenses understated /not considered in the Petition subsequent to the submission of this Petition.
- d) To condone any inadvertent commissions/errors/shortcomings and permit the applicant to add/change/modify/alter this Petition and make further submissions as may be required at later stages.
- e) To pass such orders as Hon'ble Commission may be deemed fit and proper and necessary in the facts and circumstances of the case, to grant relief to the Petitioner.

1.1.6 The Commission during hearing dated 03.11.2022, directed UPRVNL to file separate Petition for each of the power station including additional submission, if any, within a month i.e., 3rd December 2022 with a copy to UPPCL. UPPCL was to file its reply by 28th January 2022. On 02.12.2022, UPRVNL filed separate Petition(s) No. 1928/2022 to 1937/2022 in compliance to the Commission's order dated 21.11.2022. UPPCL has filed its reply against four power plants i.e., Anpara-A, Anpara-B, Anpara-D & Obra-B.

1.1.7 During the proceedings on 25.01.2023, UPPCL sought 10 days of time for filing remaining replies. Shri Rajeev Shrivastava, Advocate of UPRVNL sought four-week time to file its rejoinder to the UPPCL's reply. After hearing the parties, the Commission allowed UPPCL to file their reply in ten days' time with a copy to UPRVNL and UPRVNL to file its rejoinder within three-week time thereafter. The Commission admitted the Petition for further processing with direction that the Petitioner shall furnish further information/clarifications, if any, as deemed necessary by the Commission during the processing of the Petition and provide the same to the satisfaction of the Commission within the time frame as stipulated by the Commission.

1.1.8 The details of the Public Hearing on 16.03.2023 were provided on the Commission's website www.uperc.org and all stakeholders who wished to participate in the Public Hearing were to send an e-mail on office@uperc.org latest by March 13, 2023, providing their name, organisation, designation, mobile number, email address to register themselves. All the stakeholders who wished to participate in the Public Hearing were to submit their written suggestions and objections in hard copies (one original + 5 sets of copies) to the Secretary, UPERC and be present during the public hearing.

1.1.9 The Commission held the public hearing on 16.03.2023, wherein, following comments from public representatives and UPPCL were received:

Sh. Rama Shankar Awasthi



UPRVUNL has not uploaded the annexures to the Petition in their website for public reference and comments. R&M cost of Obra power station claimed keeps on increasing and therefore prudent check is necessary.

- (a) The Commission is requested to analyse cost towards emission in view of CEA norms, however, In Principal approval should not be entertained for the same.
- (b) For the new Harduaganj power station of 660MW, PPA is not available in their website for the public comments and therefore, its analysis of time & cost overrun is difficult to be analysed for unknow SCOD.

Sh. Avdhesh Kumar Verma

- (c) It is very well known that cost efficient energy is supplied to the consumers from the UPRVUNL power station and to continue the same, it is necessary to coordinate and support in a coherent manner so that the benefit of cheap power is available to the state consumers.
- (d) He requested the Commission to allow claimed cost only after prudent check so that the consumers are not burdened with increase in tariff.
- (e) The assets of UPRVUNL for the upcoming project of Obra-D and Anpara-E should remain with UPRVUNL for cost efficient power being made available to the state consumers.

UPPCL

- (f) Out of ten power projects, five has already completed its useful life and therefore, in principle approval for the additional capital expenditure for only essential items be allowed.
- (g) The Commission enquired UPPCL about the status of the PPA with projects whose useful life is completed. Sh. Gupta responded that they would file the details in their written submissions.
- (h) As per Regulation 20 of Generation Tariff Regulations 2019, UPRVUNL cannot be allowed cost towards R&M as well as Special Allowance. Further, for the Claimed R&M cost, UPRVUNL has not provided the details such as Detailed Project Report, Cost Benefit Analysis, etc.
- (i) UPRVUNL in its additional submission has claimed reimbursement of statutory due without providing the details along with requisite documents for the same and therefore, the same should not be allowed by the Commission.

UPRVUNL

- (j) The interest of UPRVUNL should be protected in terms of applicable Rules and Regulations of the Commission. They would file the details as stated and required by the stakeholders in the matter.

**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



After hearing the stakeholders, the Commission granted two-week time to the stakeholders to file their written submissions. Sh. Awasthi submitted its written comments on 16.03.2023. UPPCL has filed its written submissions on 26.04.23.

1.2 Regulatory Framework

- 1.2.1 Section 61 of the Electricity Act, 2003 deals with Tariff Regulations. Section 62(1) of the Act provides that the Appropriate Commission shall determine the tariff by the provisions of the Act, inter alia for the supply of electricity by a generating company to a distribution licensee. Further, by Section 86 (1) (a) of the Act, the Commission shall determine the tariff for the generation of power at stations owned by the UPRVNL. Section 86(1) (b) further mandates the Commission to regulate the electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees.
- 1.2.2 Accordingly, the Commission issued the First tariff regulations the Uttar Pradesh Electricity Regulatory Commission (Terms and Condition of Generation Tariff) Regulations, 2004 which were applicable for FY 2005-06 to FY 2007-08. Such regulations were extended for FY 2008-09 as well. The Commission had approved tariff orders for the period FY 2005-06 to FY 2007-08 dated 26th March 2007 and for FY 2008-09 dated 6th March 2009 based on the framework of the aforementioned regulations.
- 1.2.3 The Commission notified the Uttar Pradesh Electricity Regulatory Commission (Terms and Condition of Generation Tariff) Regulations, 2009 for the control period of FY 2009-10 to FY 2013-14 wherein the vintage of certain power stations (TPS), Obra B TPS, Panki TPS, Harduaganj TPS, and Parichha TPS, were recognized and certain relaxations towards operating norms for these stations were provided.
- 1.2.4 Subsequently, the Commission notified the Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions of Generation Tariff) Regulations 2014 which came into effect from 01.04.2014 and were for the control period of FY 2014-15 to FY 2018-19. In continuation with the previous MYT Regulations, 2009 the vintage of certain power stations of the Petitioner namely Obra A Thermal Power Station (TPS), Obra B TPS, Panki TPS, Harduaganj TPS, and Parichha TPS were continued and relaxed operating norms in respect of such stations were accordingly provided.
- 1.2.5 Furthermore, on 11th September 2019 UPERC vide notification no. UPERC/Secy/Generation Regulations, 2019/343A has notified Generation Regulation for the control period of FY 2019-20 to FY 2023-24. In continuation with the previous MYT Regulations, 2014, the vintage of certain Petitioner power stations, namely Obra-B TPS, Harduaganj-B TPS, and Parichha TPS, was continued

**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



and relaxed operating norms in respect of such stations were accordingly provided.

1.3 UPRVNL MYT Petition for the Control Period (FY 2019-20 To FY 2023-4)

Petition No. 1932/2022

- 1.3.1 The Petitioner, as per the direction of the Commission resubmitted the MYT and ARR petition for FY 2019-20 for Paricha Unit 2 (1X110 MW) in Petition No. 1932/2022 based on and along with Audited Account of UPRVNL for the period of FY 2019-20. The Summary of the Petition is tabulated below:

Table 3 Calculation of Annual Fixed projected by the Petitioner in Rs. Cr.

Particulars	2019-20 (Audited)
Depreciation	26.38
Interest on Loan Capital	5.66
Return on Equity	19.98
O&M Expenses	42.22
Interest on Working Capital	5.35
Total Capacity Charges	99.59
Energy ex bus	602
FC per unit	1.65

Table 4 Calculation of Energy charges projected by the Petitioner.

Description	Unit	2019-20
Capacity	MW	110
PLF	%	70%
Gross Station Heat Rate	Kcal/kWh	2980
Auxiliary Energy Consumption	%	10.70%
Energy Generation - Gross	MU	675
Auxiliary Energy Consumption	MU	72
Ex-bus Energy Sent Out	MU	602
Specific Oil Consumption	ml/kWh	2.60
Wt. Avg. GCV of Oil	KCal/Lt	7,194
Price of Oil	Rs./KL	38,801
Wt. Avg. GCV of Coal	kCal/kg	2673
GCV of Primary Fuel (Coal) less 85 Kcal/Kg on account of variation during storage	kCal/kg	2588
Price of Coal	Rs./MT	3270
Heat Contribution from SFO	Kcal/kWh	18.70
Oil Consumption	KL	1754
Heat Contribution from Coal	Kcal/kWh	2961
Specific Coal Consumption	kg/kWh	1.14
Coal Consumption	MMT	0.77
Total Cost of Oil	Rs Cr	6.80

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**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



Description	Unit	2019-20
Total Cost of Coal	Rs Cr	252.35
Total Fuel Cost	Rs Cr	259.15
Rate of Energy Charge from Secondary Fuel Oil ex-bus	Paise/kWh	11.30
Rate of Energy Charge from Coal ex-bus	Paise/kWh	418.95
Rate of Energy Charge ex-bus per kWh	Paise/kWh	430.24

Additional Submission dated 8.12.2022.

- 1.3.2 The petitioner has filled additional submission to allow the recovery of the statutory charges imposed by the State and Central government such as electricity duty, Water cost, Water cess, pollution cess, Rates and taxes including fringe benefit, tax, Forest Cess, Gratuity, provident fund, the impact of pay revision and fees payable to UPERC/CERC/CEA/UPSLDC, etc. as separate pass-through in tariff.

1.4 UPPCL Counter Affidavit dated 23.01.2023 and UPRVNL reply dated 06.03.2023

(a) Governing Tariff Regulation

UPPCL Objection

Petitioner has not provided incomplete/ not filled Tariff Forms, (Form 5, Form 9A & Form 10) which as per the mandate of the UPERC Tariff Regulations 2019 are necessarily required to be provided.

Petitioner Reply

It has submitted the relevant Forms in accordance with the relevant provisions of the UPERC Tariff Regulations as applicable.

(b) Return on Equity

UPPCL Objection

The Petitioner has projected ROE for the Period of 2019-24 by considering the rate of interest as 15% per annum on a normative basis. However, based on the Govt. of UP order dated 31.07.2017 and subsequent adoption of the same by the Board of Directors on 09.04.2018, the Petitioner has billed the ROE at 2% for FY 2019-24. Therefore, the Commission may allow ROE as INR 144.81 Crores against INR 1093.15 Crores as claimed by the Petitioner for FY 2019-24.

Petitioner Submission

The Petitioner submitted that the Uttar Pradesh Government, subsequent to the issuance of the Tariff order for FY 2014-15 to FY 2018-19 issued an order vide letter no. 1714/24-1-2017-1714(B)/2017 dated 31.07.2017 to the Petitioner approving the Petitioner to maintain the provision of Return on Equity at 2% from FY 2017-18 onwards so as to support UPPCL until such time UPPCL achieves

**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



turnaround in accordance to the UDAY Scheme. Considering the poor health of UPPCL's balance sheet and providing some breathing space the provision of a 2% Return on equity for the Petitioner was implemented. Accordingly, the Petitioner has billed the Fixed cost keeping the RoE at 2% from FY 2017-18 onwards to UPPCL and the rest of 13.5% has been foregone.

(c) Interest on Working Capital

UPPCL Objection

The allowable IoWC shall be INR 4.92 Crore instead of INR 5.35 Crore.

Petitioner Submission

The Petitioner submitted that it has worked out Interest on working capital based on the normative basis as per the provision of the Tariff Regulation 2019.

(d) Annual Fixed (Capacity) Charges (AFC)

UPPCL Submission

UPPCL submitted that based on the submission made hereinabove the Annual Fixed Charge ought to be changed and accordingly, UPPCL assessed the AFC of INR 78.42 Crore instead of INR 99.59 Crores as claimed by the Petitioner for FY 2019-20.

(e) Additional Submissions dated 28.12.2022.

UPPCL Submission

UPPCL submitted that the Commission may allow for annual payments related to various statutory charges, subject to the necessary supporting documents being provided by the Petitioner which are required to substantiate its claims, at the time truing up, subject to prudence check.

1.5 Scrutiny of the Petition

- 1.5.1 The Commission vide its letter no UPERC /Secy/D(G)/23-1602, dated 15.02.2023 directed the Petitioner to submit the component-wise capitalization and decapitalization details as per form 9 of Annexure 2 of the Generation Tariff Regulation 2019. The Petitioner vide letter no. 103/UNL/CE(Comm.)/MYT (2019-24) submitted the reply to the above queries and submitted the component-wise breakup of additional capitalization for FY 2019-20 to FY 2021-22. The detailed breakup is provided in the below table:

**Table 5 Additional Capitalization claimed by the Petitioner in Rs. Cr. for FY
2019-20 to FY 2021-22**

Head of Work/Equipment	Add. Cap.		Regulation
	Accrual Basis	Cash Basis	
FY 2019-20			
Total	0.00	0.00	

**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



- 1.5.2 The Commission, subsequently, sought details of fuel data for Jan to March data of period previous to the control period 2019-24. UPRVNL vide their letter dated 18-03-2023 have furnished cost accountant certified data for Jan -March 20 and CA certified cost data of Jan-March 19 for Parichha Unit-2 as the machine had run up to Dec'19 only.

1.6 Tariff Design

- 1.6.1 The tariff is structured on the following basis:

- a) The data of GFA, NFA, Debt, and Equity, as approved by the Commission of FY 2018-19 in the true-up order dated 05.09.2022 in Petition No. 1723/2021, has been considered as baseline data for the calculation of tariff and ARR for this Petition for the MYT period from FY 2019-20 to FY 2023-2024. The Accumulated Depreciation has been considered on the normative basis as derived from the approved values of GFA, NFA, Debt, and Equity in the order dated 05.09.2022.
- b) The Return on Equity has been considered as 15% as provided in the UPERC Generation Tariff Regulation 2019.
- c) The Rate of Interest has been the weighted average rate of interest calculated based on actual loans at the beginning of each financial year and is to be adjusted based on the actual loan each financial year accordingly. If there is no actual loan for a particular financial year but the normative loan is still outstanding, the last available weighted average of interest has been considered.
- d) Depreciation has been allowed as provided in Regulation 24 (iii) in the UPERC Generation Tariff Regulations, 2019.
- e) The O&M expenditure has been allowed as per the normative values provided in Regulation 24(iv) of the UPERC Generation Tariff Regulations, 2019.
- f) Working capital requirement has been allowed as per Regulation 24 (v) of the UPERC Generation Tariff Regulations 2019. The rate of interest on working capital has been allowed on a normative base is and consider as the Bank Rate as of 1.4.2019 or as of 1st April of the year during the tariff period FY 2019-24 in which the generating station or a unit thereof is declared under commercial operation, whichever is later.
- g) Thus, the MYT for Thermal Power Stations of the Petitioner for FY 2019-2020 to FY 2023-2024 has been worked out adopting the above elaborate methodology. -

1.7 MYT for FY 2019-20 to FY 2023-24: Capacity (Fixed) Charges

1.7.1 Provisions under Regulations 2019

For the determination of components of fixed charges, for MYT period of FY 2019-20 to FY 2023-24, the Commission has considered the parameters as provided under UPERC Generation Tariff Regulation 2019. The Commission has thus considered to allow the parameters as below:

Table 6: Components of Fixed Charges

Particulars	Value	Remarks
Debt: Equity Ratio	70:30	As per Regulation
Return on Equity	15.00%	As Per Regulation
Interest on Loan	11.40%	last approved weighted average of the loan
O&M Expenses	Normative	As per Regulation
Interest on Working Capital	12.05%	As per regulation

1.7.2 Additional Capitalization

The three units are operational at present. The unit wise COD achieved as under:

Table 7: COD of Parichha 1x110 MW

TPS	Unit No.	Capacity	COD
Parichha	2	110 MW	25.02.1985

1.7.3 GFA Balance

1.7.3.1 The Commission, approves the following GFA, basis the True-up Order dated 05.09.2022 for FY 2014-19:

(Figures in Rs. Crore)

Particulars	Approved
Opening GFA	486.91
Capitalization	
Deletions	
Closing GFA	486.91
Average GFA	486.91

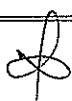
1.7.4 Depreciation

1.7.4.1 The Commission for the purpose of calculation of depreciation guided by clause 24 (iii) UPERC Generation Regulation, 2019. The Commission has applied depreciation rates as prescribed in Appendix iii of the regulation based on the gross fixed assets and capitalization approved and worked out the depreciation accordingly.

Table: Depreciation approved by the Commission for FY 2019-24 Period

(Figures in Rs. Crore)

Particulars	FY 2019-20
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**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



	Approved
Capital Cost including additional capitalization	486.91
Depreciable value =90% of Capital cost (excluding Land cost)	434.93
Cumulative depreciation approved up to start of respective financial year	290.64
Remaining Depreciation	144.29
Depreciation approved in the instant Petition	26.38
Cumulative depreciation approved up to end of respective financial year	317.02

1.7.5 Means of Finance

1.7.5.1 Accordingly, the Commission has approved the normative equity, debt, and depreciation for the Period of FY 2019-20 to FY 2023-24. The GFA, Debt, equity and Net fixed asset as approved are as below:

(Figures in Rs. Crore)

Particulars	FY 2019-20
Opening GFA	486.91
Additions	0
Deletions	0
Closing GFA	486.91
Closing Net GFA	169.89
Financing	
Opening Equity	133.18
Additions	0.00
Deletion	0.00
Closing Equity	133.18
Open. Accumulated Depreciation	290.64
Depreciation during the Year	26.38
Closing Accumulated Depreciation	317.02
Opening Debts	62.82
Additions	0.00
Less: Depreciation (Normative Repayment)	26.38
Decapitalisation	0.00
Closing Debts	36.44

1.7.6 Interest on loan

1.7.6.1 The Commission has considered the outstanding loan as of 1st April 2019 as the opening loan for FY 2019-20 and the repayment for the control period shall be equal to the depreciation allowed for the year. The Commission has considered the last available weighted average rate of interest for the calculation of the Interest on Loan for the control period of FY 2019-24.

(Figures in Rs. Crore)

Particulars	FY 2019-20
	Approved
Opening Loan	62.82
Addition	0.00

**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



Normative Repayment	26.38
Decapitalisation	0.00
Closing Loan	36.44
Average Debt	49.63
Interest Rate	11.40%
Interest on Loan	5.66

1.7.7 Return on Equity

1.7.7.1 The Commission has approved ROE @ 15.00% in terms of UPERC Generation Regulation, 2019. Accordingly, the Return on Equity to the Petitioner has been projected below:

(Figures in Rs. Crore)

Particular	FY 2019-20
	Approved
Opening Equity	133.18
Additions	0
Less: Decapitalisation	0
Closing Equity	133.18
Rate of Return on Equity (%)	15.00%
Allowable RoE	19.98

1.7.8 O&M expenses

1.7.8.1 Regulation 24 (iv) of the UPERC Generation Regulation 2019 deals with the Operation and Maintenance expenses of power plants. Para 24 (iv) is reproduced below

(iv) Operation and Maintenance Expenses:

(a) For Coal based-generating stations except those covered under clause (b):

(in Rs. lakh/MW)

Financial Year	Up to 200/210/250 MW sets	300/330/350 MW sets	500 MW sets	600 MW & above sets
2019-20	32.96	27.74	22.51	20.26
2020-21	34.12	28.71	23.30	20.97
2021-22	35.31	29.72	24.12	21.71
2022-23	36.56	30.76	24.97	22.47
2023-24	37.84	31.84	25.84	23.96

(b)

(in Rs lakh/MW)

Financial year	Harduganj (U#7)	Paricha (U#2))
2019-20	64.80	38.80
2020-21	67.07	40.16
2021-22	69.43	41.57
2022-23	71.86	43.03
2023-24	74.39	44.54

1.7.8.2 The Commission, accordingly, has approved the O&M expenses as below:

Table : Approved O&M Expenses

(Figures in Rs. Crore)

Particulars	FY 2019-20
	Approved

**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



Capacity	110
Norms (Lakh/MW)	38.8
O&M Expenses (Rs. Cr.)	42.68

1.7.9 Interest on Working Capital

1.7.9.1 In line with Regulation 25(v), the commission has approved the Interest on Working capital for the five-year control period, i.e., from FY 2019-20 to FY 2023-24.

(Figures in Rs. Crore)

Particulars	FY 2019-20
	Approved
Cost of Coal -50 (20+30) days	34.22
Cost of Main Secondary Fuel Oil -2months	1.52
O&M Expenses -one month	3.56
Maintenance Spares @ 20% of O&M	8.54
Receivables 45 Days	44.94
Total Working Capital	92.76
Rate of Interest	12.05%
Interest on Working Capital	11.18

1.7.9.2 Weighted Average Cost and Gross Calorific Value of Coal and Oil

The Commission has considered cost accountant certified Fuel details for October 2019 to December 2019 and the average values for October 2019 to December 2019 worked out as under:

Particulars		Oct'19	Nov'19	Dec'19	Average
Weight Average Landed Cost of Coal	Rs./MT	4273.20	4434.78	4436.49	4381.49
Weighted Average GCV of Coal as receipt basis	Kcal/KG	3569.00	3551.50	3623.20	3581.23
Weighted Average Landed Cost of Oil	Rs./KL	51734.67	51734.67	51734.67	51734.67
Weighted Average GCV of Oil as receipt basis	Kcal/Ltr.	9508.70	9508.70	9508.70	9508.70

1.7.10 Annual Fixed Charges

1.7.10.1 Based on discussion in above sections, the fixed charges as claimed by the Petitioner and approved by the Commission in present True-up order is shown in the Table below:

(Figures in Rs. Crore)

Particulars	2019-20 (Audited)
Depreciation	26.38
Interest on Loan Capital	5.66
Return on Equity	19.98
O&M Expenses	42.22
Interest on Working Capital	5.35

**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



Particulars	2019-20 (Audited)
Total Capacity Charges	99.59
Energy ex bus	602
FC per unit	1.65

(Figures in Rs. Crore)

Particulars	FY 2019-20
	Approved
Depreciation	26.38
Interest on Loan Capital	5.66
Return on Equity	19.98
O&M Expenses	42.68
Interest on Working Capital	11.18
Total Capacity charge	105.88
Ex-bus energy sent out (MU)	604
FC/Unit (Rs. /Kwhr)	1.75

In operation till December 19 only

1.7.11 Variable Charges

1.7.11.1 Based on the operation norms provided in the UPERC Generation Tariff Regulations, 2019 and the Commission's decisions in the foregoing paragraphs, the representative variable charge per unit of generation for the MYT period of FY 2014-15 to F 2018-19 is as given in the following table.

Particulars	Unit	FY 2019-20
Capacity	MW	110
PLF	%	70%
Gross Station Heat Rate	Kcal/kWh	2980
Auxiliary Energy Consumption	%	10.70%
Gross Generation	MU	676
Auxiliary Energy Consumption	MU	72
Ex-Bus Energy sent out	MU	604
Specific oil Consumption	ml/kWh	2.60
Wt. Avg. GCV of Oil	Kcal/Lt	9508.70
Price of Oil	Rs./KL	51734.67
Wt. Avg. GCV of Coal	kCal/kg	3581.23
GCV of Primary Fuel less 85 Kcal/Kg on account of variation during storage	kCal/kg	3496.23
Price of Coal	Rs./MT	4381.49
Heat Contribution from SFO	Kcal/kWh	24.72
Oil Consumption	KL	1758.56
Heat Contribution from Coal	Kcal/kWh	2955.28
Specific Coal Consumption	kg/kWh	0.85
Coal Consumption	MMT	0.57
Total Oil Cost	Rs. Cr	9.10
Total Cost of Coal	Rs. Cr	250.50
Total Fuel Cost	Rs. Cr	259.59
Rate of Energy Charge from Secondary Fuel Oil ex-bus	Paise/kWh	15.06

**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



Rate of Energy Charge from Coal ex-Bus	Paise/kWh	414.73
Rate of Energy Charge exbus	Paise/kWh	429.80

1.7.12 Carrying Cost

1.7.12.1 UPRVNL is billing fixed charges for the period, so far, covered in control period, from 1st April 2019 till date, @ fixed charges approved by the Commission vide its order dated April 29, 2016, in Petition No. 1025 and 1026 of 2015 and Order dated January 18, 2017, in the Petition No. 1117 and 1126 of 2016. The yearly billed amount for FY 2019-24, till date, would depend upon the availability and energy scheduled during different months in the year.

1.7.12.2 The carrying cost on the Multi Year Tariff amount for control period FY 2019-20 to FY 2023-24 shall be worked out till the date of order as per the prevailing Bank Rates in terms of Regulation 15(3) of the UPERC Tariff Regulations, 2019. In accordance with the UPERC Tariff Regulations the rate of interest for Carrying Cost shall be equal to the One Year Marginal Cost of Lending Rate (MCLR) of Interest as specified by State Bank of India as on 1st April of the respective year plus 350 basis points for control period 01.04.2019 till the date of order. Above effective rates are as tabulated below:

Year	Effective Rate of Interest for respective FY
FY 2019-20	12.05%
FY 2020-21	11.25%
FY 2021-22	10.50%
FY 2022-23	10.50%
FY 2023-24	12.00%

1.7.13 Other Provision

(a) Recovery of Application fee and Statutory Charges

In addition to the above tariff the Petitioner shall be allowed to recover the payment of statutory charges like electricity duty, water cess, payment to Pollution Control Board, and Regulatory Fee paid to the Commission, on the production of details of actual payments made and duly supported with the certificate of the Statutory Auditors in accordance with Regulation 33 of UPERC Generation Tariff Regulation, 2019.

(b) Sharing of Benefits

**Multi-Year Tariff and ARR of FY 2019-20 for
Paricha 1x110 MW (UPRVNL)**



Financial gains shared between the Petitioner and Beneficiaries in accordance with Regulation 34 of UPERC Generation Tariff Regulation, 2019.

(c) Incentive

Incentive to all thermal power stations shall be at flat rate of 65 Paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to target plant load factor.

(d) Rebate

For payment of bills of capacity charges and energy charges beneficiaries shall be eligible for rebate in accordance with Regulation 37 of UPERC Generation Tariff Regulation, 2019.

(e) Late Payment Surcharge

For late payment of bills of capacity and Regulation beneficiaries shall pay late payment surcharge in accordance with the Regulation 38 of the Generation Tariff Regulation 2019.

With the above directions, the Petition is disposed of.

(Vinod Kumar Srivastava)
Member

(Raj Pratap Singh)
Chairman

Place: Lucknow

Dated: 29.05.2023

