E. Petitioner's Response

3.2.14 UPPTCL submitted that the average transmission system availability of UPPTCL for the past few years has remained above 99% as mentioned below:

Table 3-2: TRANSMISSION SYSYTEM AVAILABILTY AS SUBMITTED BY PETITIONER

FY	2016-17	2017-18	2018-19	2019-20
Normative Annual Transmission System Availability factor as per the Regulations (%)	98%	98%	98%	98%
Actual Transmission System Availability (%)	99.03%	99.07%	99.01%	99.47%

F. Commission's View

3.2.15 The Commission has noted the comments of the Stakeholder and reply of the Petitioner on Transmission System Availability.

O&M EXPENSE

G. Comment/Suggestion of the stakeholders

3.2.16 Shri Avadesh Kumar Verma submitted that the Commission for FY 2020-21 approved Rs. 607.29 Crore towards employee cost where as in Tariff Petition the Petitioner has claimed Rs. 1020 Crore. He further submitted that earlier the approved O & M expenses was Rs. 962 Crores where as they have proposed Rs. 1560 for FY 2021-22 Crore which is not correct and should be rejected.

H. Petitioner's Response

3.2.17 The Petitioner submitted that it has claimed the normative O&M expenses for the FY 2021-22 as per the provisions of the Regulation 34 of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution and Transmission) Regulations, 2019 and methodology approved by the Commission in its Tariff Order dated 10th November 2020.

3.2.18 The Petitioner has submitted that the Commission in the Tariff Order dated 10th

November 2020 had considered the lower of the normative and actual expenses for the past years (i.e. FY 2017-18 & FY 2018-19), which is not in line with the provisions of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Transmission) Regulations, 2014. The Petitioner has already filed a review Petition in the said Order for reviewing the UPERC approach of the Commission for allowing the O&M expenses for FY 2017-18 & FY 2018-19.

3.2.19 The Petitioner further submitted that, on the basis of the approved O&M expenses for FY 2017-18 & FY 2018-19 the Commission has computed the O&M expenses for the FY 2020-21 which is Rs. 962.01 crore against Rs. 1319.71 crore claimed by the Petitioner. The disallowance in the true-up expenses for the FY 2017-18 & FY 2018-19 has significantly reduced the O&M expenses for the base year, thereby reducing allowable O&M expenses for the FY 2020-21.

I. Commission's View

3.2.20 The Commission has noted the comments of the Stakeholder and reply of the Petitioner on O&M Expense. The Commission has subsequently dealt the issue in the relevant sections of this Order.

Requirement of Transformation Capacity

J. Comment/Suggestion of the stakeholders

3.2.21 Shri Avadesh Kumar Verma submitted that the capacity of 132 kV substation is 52727 MVA which means 4 Crore 74 Lakh kW where as for 2 Crore 93 Lakh consumers, 6 Crore 32 Lakh kW load is required that means there is a gap of 2 Crore kW and above that electricity theft accounts almost 1 Crore kW. This is system mismatch which leads to low quality of power supply.

K. Petitioner's Response

3.2.22 The Petitioner submitted that the transmission system is generally planned for the following:

a) For evacuation of power from generating stations within the state.

b) To handle the expected peak demand of Discoms and Long Term Open Access consumers.

c) System augmentation considering the operational constraints in the transmission system and to improve the overall performance in respect of reliability, resistance and safety/stability of the grid.

3.2.23 The Petitioner submitted that the state transmission network is planned as per the Central Electricity Authority's ("CEA") Transmission Planning Criteria which provides for creation of transmission infrastructure to sustain even during contingencies and to cater the Peak Demand of the State. UPPTCL has met the peak demand of the State in the past years as mentioned below:

Table 3-3: PAST YEAR'S PEAK DEMAND AS SUBMITTED BY PETITIONER

FY	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Peak Demand Met (MW)	12,327	13,003	14,503	16,110	18,061	20,062	21,632
Generation Capacity within state (MW)*	14,394	15,087	18,632	23,662	25,011	25,130	26,162
Investments (in Rs. Crores)	1568	1377	2,759	3,942	3,280	3,428	3,920

**This includes of total of state, central and private sector as per CEA*

3.2.24 The Petitioner Submitted that the peak demand handled has increased ~75% during FY 2013-14 to FY 2019-20. Further, the generation capacity within the state has also grown by ~80%. The planned capacity of UPPTCL's network is required to be increased suitably to meet the projected peak demand of 30,819 MW (As per the projections of the UPERC in the Business Plan Order dated 15th October 2020) for state Discoms and other long term customers by 2024-25. Thus, to meet this increase in demand along with evacuation requirement of power from generating stations, drawing of power from ISTS, augmentation works considering the operational constraints and to sustain even during contingencies, UPPTCL has planned the capital expenditure for the FY 2021-22.

3.2.25 The Petitioner further submitted that the system mismatch and connected load data, Discoms project their peak demand by considering the existing connected load as well as load growth, taking into account of diversity factor, load factor, supply hours etc. The Petitioner further stated that the transmission network is planned in accordance with peak demand projections provided by the Discoms. Further the Discoms installed MVA capacity at the 33 kV for the state in FY 2018-19 was 45,354 MVA against which the transformation capacity of UPPTCL at 132/33 kV was 48,001 MVA, through which the Petitioner has adequately handled the peak demand during the year and in past years as provided in the table above without any significant peak/energy deficit.

3.2.26 The Petitioner stated that if the transformation capacity of UPPTCL at 132/33 kV is set-up equivalent to the connected load at Discom level i.e. up to 63,200 MVA, this will require extra investment towards such additional capacity by both Discoms and UPPTCL and will also impose additional burden on the consumers due to increase in the transmission/retail tariff and also the part of the transformation capacity at the 132/33 kV level will remain un-utilised for most of the off-peak period.

L. Commission's View

3.2.27 The Commission has noted the comments of the Stakeholder and reply of the Petitioner on Transformation Capacity. The Commission has subsequently dealt the issue in the relevant sections of this Order.

3.2.28 The list of consumers, who attended the Public Hearings, is appended at Annexure 2.

4 TRUING UP OF AGGREGATE REVENUE REQUIREMENT FOR FY 2019-20

4.1.1 The Commission, in its Tariff Order dated November 10, 2020 in Petition No. 1515/2020 & 1571/2020 approved the True up of ARR for FY 2017-18 & FY 2018-19, Annual Performance Review (APR) for FY 2019-20 and Aggregate Revenue Requirement (ARR) and Tariff for FY 2020-21 for UPPTCL. In this Section, the Commission has analysed all the elements of actual revenue and expenses for FY 2019-20, and has undertaken the truing up of expenses and revenue after prudence check of the data made available by the Petitioner. The Commission has allowed the true up for FY 2019-20 considering the principles laid down in the UPERC (Multi Year Transmission Tariff) Regulations, 2014.

4.1.2 It was observed that, initially the Petitioner submitted provisional accounts along with the True-Up petitions, then on direction of the Commission, submitted the Audited Accounts for FY 2019-20 on June 3, 2021 to the Commission and further submitted that CAG audit reports are not available.

4.2 TRANSMISSION SYSTEM AVAILABLITY

Petitioner's submission

4.2.1 The Petitioner submitted that the transmission availability for UPPTCL's Transmission System was 99.47 % in FY 2019-20.

Commission's Analysis

4.2.2 The Regulation 16 of UPERC (MYT for Transmission Tariff) Regulations, 2014 specifies that:

Quote

16 Target availability

16.1 Normative Annual Transmission System Availability factor (NATSAF) shall be as under:

(1) AC System : 98%

Unquote

4.2.3 The Commission has gone through the details of Transmission Availability for FY 2019-20 submitted by UPPTCL and approves the same.

4.3 CAPITAL EXPENDITURE, CAPITALIZATION & INTEREST ON LOAN

Petitioner's submission

4.3.1 The Petitioner has submitted that the Commission, in the past Tariff Orders had considered a normative tariff approach with a gearing of 70:30. Considering this approach, 70% of the capital expenditure undertaken in any year was considered to be financed through loan and balance 30% was considered to be financed through equity contributions. The portion of capital expenditure financed through consumer contributions, capital subsidies and grants were separated, and the depreciation and interest thereon were not charged. Subsequently, the financing of the capital investment was worked out based on the gearing ratio of 70:30 and allowable depreciation was considered as normative loan repayment. The Commission also considered the same approach while approving the ARR for the 1st Control period in the MYT Order dated November 30, 2017 and subsequent Tariff Orders dated January 8, 2019 and August 27, 2019. Further, the Petitioner has claimed the interest and finance charges based on the same philosophy.

4.3.2 The Petitioner submitted that during tariff proceedings it submitted the capitalisation details, fixed assets register and other details as desired by the Commission including submissions in respect of queries raised by the Commission from time to time.

4.3.3 Further the Petitioner submitted that, during True-up of FY 2017-18 & FY 2018-19 last year, despite of UPPTCL's presentations/submissions the Commission had disallowed 25% of the Capital Investment, stating that the UPPTCL did not take prior approval from the Commission for any of the schemes with capital expenditure greater than INR 10 Crore. It further submitted that the disallowance of capital expenditure of the assets integrated in the state transmission system adversely impacts the cash flows, depreciation, interest, RoE, etc. not only for the Trued up year but also for the ensuing years. Further, the Commission should allow the Licensee to recover the expenditure incurred towards providing reliable supply to the consumer of the State.

4.3.4 The Petitioner also submitted that, the Commission may not have abruptly disallowed the capital investment and it is of the view that before disallowing the investment, Commission may have considered that the expenses have been actually incurred or whether the Licensee or the consumer has actually received any benefit from such expenditure. Further the investment / capex may not have disallowed on the sole reason that UPPTCL did not take prior approval from the Commission for any of the schemes with capital expenditure greater than INR 10 Crore.

4.3.5 The Petitioner requested the Commission to allow the actual capital expenditure made by the Petitioner and consider the CWIP, GFA balance, capitalisation and capital expenditure as per the actuals for FY 2019-20. The Petitioner has submitted that considering the Capital Work in Progress (CWIP) and Gross Fixed Asset (GFA) as per annual accounts, it has derived the actual capital investments undertaken by it in FY 2019-20. The details are provided in the table below:

TABLE 4-1: CAPITAL INVESTMENTS IN FY 2019-20 AS SUBMITTED BY UPPTCL (RS. CRORE)

Particulars	Derivation	2019-20
Opening WIP as on 1st April	A	6805.05
Investments	B	3919.70
Employee Expenses Capitalisation	C	255.21
A&G Expenses Capitalisation	D	0.00
Interest Capitalisation on Interest on long term loans	E	168.20
Total Investments	**F= A+B+C+D+E**	**11148.16**
Transferred to GFA (Total Capitalisation)	G	3310.41
Closing WIP	**H= F-G**	**7837.75**

4.3.6 The table below gives details of the amounts received towards consumer contributions, capital grants and subsidies claimed by the Petitioner in FY 2019-20:

TABLE 4-2: CONSUMER CONTRIBUTIONS, CAPITAL GRANTS AND SUBSIDIES IN FY 2019-20 AS SUBMITTED BY UPPTCL (RS. CRORE)

Particulars	2019-20
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	1319.32
Additions during the year	396.72
Less: Amortisation	102.92
Closing Balance	**1613.13**

4.3.7 The financing of the capital investment as claimed by UPPTCL is depicted in the table below:

TABLE 4-3: FINANCING OF THE CAPITAL INVESTMENTS IN FY 2019-20 AS SUBMITTED BY UPPTCL (RS. CRORE)

Particulars	Derivation	2019-20
Investment	A	3919.70
Less:		
Consumer Contribution	B	396.72
Investment funded by debt and equity	C=A-B	3522.98
Debt Funded	70%	2466.09
Equity Funded	30%	1056.89

4.3.8 The Petitioner submitted that it made an investment of Rs. 3,919.70 Crore in FY 2019-20. The total of consumer contributions, capital subsidies and grants received during the corresponding period is Rs. 396.72 Crore. Thus, balance of Rs. 3522.98 Crore have been funded through debt and equity. Considering a debt equity ratio of 70:30, Rs. 2,466.09 Crore or 70% of the capital investment is through debt and balance 30% equivalent to Rs. 1056.89 Crore is through equity. Allowable depreciation for the year has been considered as normative loan repayment.

4.3.9 The Petitioner further submitted that the actual weighted average rate of 10.93% (being the weighted average rate of interest on long term loan portfolio as per annual accounts) has been considered for computing the eligible interest expenses. The interest capitalisation has been considered at the same levels as per the Annual Accounts of FY 2019-20. The opening balance of long-term loan has been considered as per the normative closing loan balance as considered in the FY 2018-19 True-Up Petition.

4.3.10 Considering the above, the Petitioner has submitted that the gross interest on long term loan is Rs. 1332.83 Crore. The interest capitalisation has been considered at the same rate as per annual accounts. The computations for interest on long term loan are depicted below:

TABLE 4-4: INTEREST ON LONG TERM LOAN FOR FY 2019-20 AS SUBMITTED BY UPPTCL (RS. CRORE)

Particulars	FY 2019-20
Opening Loan	11582.42
Loan Additions (70% of Investments)	2466.09
Less: Repayments (Depreciation allowable for the year)	1233.60
Closing Loan Balance	12814.94
Weighted Average Rate of Interest	10.93%
Interest on long term loan	**1332.83**
Interest Capitalisation Rate	12.62%
Less: Interest Capitalised	168.20
Net Interest Charged	**1164.63**

Commission's Analysis

CAPEX and INVESTMENT

4.3.11 In the Multi Year Tariff Order dated 30.11.2017, for the 1st Control Period from FY 2017-18 to FY 2019-20 of UPPTCL, the Commission had observed that the capital investment claimed by the Licensee was not in accordance with the UPERC (Multi Year Transmission Tariff) Regulations, 2014. However, the Commission approved the full capital investment proposed by the licensee for catering the demand addition under the UDAY and 24 x 7 Power For All schemes. Further, the Commission had observed that if the Licensee failed to submit the capital investment plan while filing the APR for FY 2017-18, the Commission may disallow 30% of the proposed capital investment. The relevant extract is provided below as per chapter 7.7.10 of the MYT Order dated 30.11.2017:

Quote

"7.7.10 For the control period, the Commission observes that the capital investment claimed by the Licensee is not in accordance with the Transmission MYT Regulations, 2014 as reproduced above and hence, the Commission vide its deficiency notes sought the remaining information from the Licensee, however UPPTCL did not submit any of the sought information. The Commission in its previous orders has been approving 70% of the claimed capital investment on account of incomplete submission of capital investment plan. However, the Commission has observed that the Licensee has proposed such intensive capital investment for catering the upcoming demand addition inked under UDAY and 24 x 7 Power For ALL schemes. Hence, in view of the above, the Commission approves full capital investment as proposed by the Petitioner, however the Commission directs the petitioner to submit the complete capital investment plan at the time of APR for FY 2017-18. It is to be noted that if the Licensee fails to submit the capital investment plan while filing the Annual Performance Review (APR) petition, the Commission may disallow the 30% of proposed capital investment in order to reprimand the petitioner."

Unquote

4.3.12 Further, with respect to the Regulation 19A of the MYT Regulations, the Commission in Tariff Order for FY 2019-20 dated 27.08.2019 viewed as under:

Quote

7.5.2 The Commission analysed that the Petitioner is not adhering to the UPERC (Multi Year Transmission Tariff) Regulation 19 A, according to which Licensee should seek project wise prior approval of the Commission for capital expenditure greater than Rs. 10 Crore. Further, the UPPTCL has submitted that they had submitted the project wise details in the Business Plan which was approved by the Commission vide its Tariff Order dated November 30, 2017. However, in the Business Plan too the Regulation 19 A was not followed. Further, the Commission directs the Licensee to strictly comply to the Regulation 19 A, otherwise strict action will be taken by the Commission.

7.5.3 The UPPTCL has submitted a more detailed Capital Investment Plan which is yet to be vetted by the Commission. The deficiencies and queries are being finalized & being sent to UPPTCL, meanwhile the Commission is allowing only 70% of the claimed Capital Investment. Therefore, in line with the above the Commission has considered the following assumptions to arrive at the allowed GFA and CWIP:

• The Commission considers 70% of the claimed capital investments for FY 2017-18, FY 2018-19 and FY 2019-20.

• Taking 25% of total investments where total investments includes opening CWIP, Employee capitalisation, A&G capitalisation, Interest capitalisation and investments during the year.

Unquote

4.3.13 Further, the Regulation 19A of UPERC MYT Transmission Regulations, 2014 states that:

Quote

19 A. Capital Expenditure

a. Capital expenditure shall be considered on scheme wise basis.

b. For capital expenditure greater than INR 10 Crore, the Transmission Licensee shall seek prior approval of the Commission.

c. The Transmission Licensee shall submit detailed supporting documents while seeking approval from the Commission.

Provided that supporting documents shall include but not limited to purpose of investment, capital structure, capitalization schedule, financing plan and cost-benefit analysis: