TRUE-UP PETITION FOR FY 2020-21, ANNUAL PERFORMANCE REVIEW FOR FY 2021-22 & AGGREGATE REVENUE REQUIREMENT & TARIFF FOR FY 2022-23

Uttar Pradesh Power Transmission Corporation Limited

LUCKNOW

MARCH 2022

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Executive Summary:

- In accordance with Section 62 of the Electricity Act 2003 and provisions of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution and Transmission) Regulations, 2019 (hereinafter "MYT Regulations 2019") notified by the Hon'ble Uttar Pradesh Electricity Regulatory Commission (hereinafter referred to as "Hon'ble UPERC" or "Hon'ble Commission" Uttar Pradesh Power Transmission Corporation Limited (hereinafter referred to as "the Petitioner") is submitting the True-up Petition for FY 2020-21 based on the audited annual accounts for FY 2020-21 in accordance with the MYT Regulations 2019, Annual Performance Review for FY 2021-22 based on the revised estimates and Aggregate Revenue Requirement (ARR) and tariff for FY 2022-23 as per the MYT Regulations 2019.
- As per the MYT Regulations 2019 the Petitioner is required to file the True-up for FY 2020-21, APR of FY 2021-22, ARR and tariff for FY 2022-23. The petitions are to be complete in all respects along with requisite fee as prescribed in the Commission's Fee and Fine Regulations each year containing the details of the estimated expenditure and the expected revenue that it may recover in the ensuing financial year i.e. FY 2022-23 at the proposed tariff.
- As per provisions under the Electricity Act 2003, separate State Load Despatch Centre (SLDC) is to be established by the State Government to ensure integrated operation of Power System in the State. Further the MYT Transmission Regulations 2014 and MYT Regulations 2019 provide that till such time the State Government establishes separate SLDC, STU shall also operate SLDC functions and till complete segregation of accounts between SLDC function & transmission function, STU shall apportion its cost between (i) SLDC function and (ii) Transmission Function based on an allocation statement & basis of such apportionment shall be clearly indicated in the ARR petition. Currently the function of SLDC is being discharged by a separate wing within UPPTCL. Further, Hon'ble Uttar Pradesh Electricity Regulatory Commission (UPERC) vide Notification no. UPERC/Secy/SLDC regulation/2020-043 dated 14th May 2020 has notified the UPERC (Fees & Charges of State Load Despatch Centre and other related matters) Regulations 2020, (hereinafter referred to as "SLDC Regulations 2020") which provides for filing of MYT Business Plan and tariff petitions for SLDC for the period for FY 2021-22 to FY 2024-25. The Petitioner shall file a separate Petition for ARR of UPSLDC.
- The objective of the Petitioner in this filing has been to contain the expenses to a reasonable level to offset inflationary pressure as prevailing in the market. For the MYT period i.e. from FY 2020-21 to FY 2024-25, the Petitioner has tried to control the expenses to the reasonable level but due to prevailing market condition and huge capital expenditure requirement, it may not be possible to limit expenses to current levels. Further, the Petitioner has computed the ARR for Annual Performance Review of FY 2021-22 and ARR and tariff for FY 2022-23 as per the MYT Regulations 2019.
- The Petitioner in the current and ensuing years has continued with the execution of the major capital investment project as also the must do projects for meeting the demand growth and creating adequate capacity for reducing the over loading of heavily loaded transmission systems. The Petitioner has estimated a capital expenditure of Rs. 3,527.05 crore and Rs. 5,216.90 crore in FY 2021-22 and FY 2022-23 respectively.

- The Petitioner while claiming the normative expenses in line with the MYT Regulations 2019 has taken into account the actual expenses incurred in FY 2020-21 as per annual accounts and revised estimates for FY 2021-22. Further, the Petitioner has claimed the ARR and tariff for the FY 2022-23 in line with the MYT Regulations 2019 based on estimated expenses for the period.
- The Petitioner has claimed the True-up of ARR for FY 2020-21 to the tune of Rs. 3,801.31 crore. Annual Performance Review for FY 2021-22 to the tune of Rs. 3,886.65 crore and the ARR for FY 2022-23 as Rs. 4,139.04 crore. The petitioner has claimed the tariff for FY 2022-23 as Rs. 0.3173/kWh.

1 Introduction

1.1 Background

The Uttar Pradesh Power Transmission Corporation Limited (herein after referred to as 'UPPTCL' or the 'Petitioner') is a company incorporated under the Companies Act, 1956 by making amendment in the Object and Name clause of Uttar Pradesh Vidyut Vyapar Nigam Ltd and having duly passed Special Resolution on 7th June 2006 in terms of Section 21 of the Companies Act, 1956. UPPTCL started functioning with effect from 26th July, 2006 and is entrusted with the business of transmission of electrical energy to various utilities with the help of its transmission lines and substations within the geographical area of Uttar Pradesh. Before the incorporation of UPPTCL, transmission work was entrusted with UPPCL. Government of Uttar Pradesh (herein after referred to as the 'GoUP' or the 'State Govt.') in exercise of powers under section 30 of the Electricity Act, 2003, vide notification No: 122/U.N.N.P/24-07 dated 18th July 2007, notified Uttar Pradesh Power Transmission Corporation Limited as the State Transmission Utility of Uttar Pradesh. The UPPTCL now deals with the transmission of electricity for catering to the power requirements of four distribution companies viz. Madhayanchal Vidyut Vitran Nigam Ltd, Dakshinanchal Vidyut Vitran Nigam Ltd, Paschimanchal Vidyut Vitran Nigam Ltd and Poorvanchal Vidyut Vitran Nigam Ltd in addition to two other distribution companies serving Kanpur Electricity Supply Company Limited (herein after referred to as the 'KESCO'), Kanpur and Noida Power Company Limited (herein after referred to as the 'NPCL'), Noida. Further, the Petitioner is also serving the Indian Railways since FY 2017-18 which is a deemed distribution licensee.

In FY 2007-08, the final accounts have been prepared as per actual balances lying in the units books as on 1.4.2007 (the date of taking over transmission business by the company). The difference between unit wise balances and the balances appearing in the provisional Transfer Scheme amounting to Rs. 180.72 crore have been shown as Restructuring A/c under the head Reserve & Surplus pending finalisation of Transfer Scheme.

On 23rd December, 2010, the GoUP, in exercise of powers conferred under sub section (4) of section 131 of Electricity Act, 2003 and in partial modification of the scheme made under section 23 of the Uttar Pradesh Electricity Reforms Act, 1999 issued Transfer Scheme for the purpose of transfer of the transmission activities including the assets, liabilities and related proceedings from U.P. Power Corporation Ltd., to the Uttar Pradesh Power Transmission Corporation Limited.

1.2 Transmission Tariff Regulations

The Hon'ble Uttar Pradesh Electricity Regulatory Commission in exercise of the powers conferred under Section 61 and 181 of the Electricity Act, 2003 issued the Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2006 (Transmission Tariff Regulations) on 6th October, 2006.

Subsequently, on 12th May, 2014, the Hon'ble Commission notified the first MYT Regulations i.e. Uttar Pradesh Electricity Regulatory Commission (Multi Year Transmission Tariff) Regulations, 2014 which were applicable for determination of tariff from April 1, 2015 and onwards up to FY 2019-20 [i.e., till March 31, 2020] unless extended by the Order of the Commission.

Later, the Hon'ble Commission on 23rd September 2019 notified the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution and Transmission) Regulations, 2019 applicable for determination of ARR and tariff for the control period from FY 2020-21 to FY 2024-25.

Recently, the Hon'ble Commission vide Notification no. UPERC/Secy/SLDC regulation/2020-043 dated 14th May 2020 has notified the UPERC (Fees & Charges of State Load Despatch Centre and other related matters) Regulations 2020, (hereinafter referred to as "SLDC Regulations 2020") which provides for filing of MYT Business Plan and tariff petitions for SLDC for the period for FY 2021-22 to FY 2024-25.

1.3 True-up for FY 2019-20, Annual Performance Review for FY 2020-21 and ARR & Tariff for FY 2021-22

The Hon'ble Commission approved the True-up for FY 2019-20, Annual Performance Review for FY 2020-21 and ARR & Tariff for FY 2021-22 vide its order dated 29th June 2021. The Petitioner has filed a review petition against the above tariff order, the hearing in this matter was held on 11th February 2022 and the order towards the same is awaited.

1.4 True-up for FY 2020-21, Annual Performance Review Petition for FY 2021-22 and ARR & Tariff of FY 2022-23

The Petitioner is hereby submitting its True-up ARR for FY 2020-21 based on the audited annual accounts along with APR Petition for FY 2021-22 and ARR & tariff for FY 2022-23 along with the tariff formats prescribed under the MYT Regulations 2019 respectively. By means of this Petition, the UPPTCL is seeking the True-up of FY 2020-21, Annual Performance Review of FY 2021-22 and approval of ARR and transmission tariff for FY 2022-23.

Accordingly, the Petitioner has filed this petition, complete in all respects, along with requisite fee, with details of the actual or estimated expenditure incurred up to FY 2020-21, FY 2021-22 & FY 2022-23. In this petition, the Petitioner is submitting the following as part of this Petition filings for the FY 2020-21 to FY 2022-23:

- O & M Expenses.
- Deprecation.
- Interest on Loan.
- Interest on working capital.
- Return on equity.

- Non-tariff incomes.

Considering the above, this filing broadly provides expected performance of the transmission business for the financial year 2021-22 as per the revised estimates of FY 2021-22. Further, ARR and tariff for FY 2022-23 is as per the projections.

1.5 Structure of this Petition for True-up for FY 2020-21, APR for FY 2021-22 and ARR & tariff for FY 2022-23

In accordance with the provisions of MYT Regulations 2019, the Petitioner is filing the True-up for FY 2020-21 (submitted along with this petition), APR for FY 2021-22 and ARR & tariff for FY 2022-23. The structure of this Petition is as under:

Section 1	Introduction: This contains a brief background and rationale used for the submission; major assumptions used and describe the structure of the current submission.
Section 2	Overview of the Transmission Business
Section 3	True-up Petition for FY 2020-21
Section 4	Annual Performance Review of FY 2021-22
Section 5	Determination of ARR and Transmission Tariff for FY 2022-23
Section 6	Compliance with Directives
Section 6	Prayers

2 Overview of the Transmission Business

2.1 Existing Transmission System

The transmission system in the state is composed of 765 kV, 400 kV, 220 kV and 132 kV AC lines and substations, which are the part of the national grid.

Majority of the transmission lines & substations in the state transmission system are owned and operated by UPPTCL. However, there are other transmission lines & substations in UP which are the part of the inter-sate transmission system. Further transmission systems are also being constructed under Public Private Partnership on BOOT mode.

The 765 kV, 400 kV and 220 kV network forms the major transmission grid while the 132 kV systems has been treated as a sub transmission system. The UPPTCL is constructing 765 kV, 400 kV and 220 kV sub-stations along with associated transmission lines to evacuate power from upcoming generating stations and constructing 220 kV and 132 kV substations to deliver the energy to different load centres concentrated mainly in the central and western part of Uttar Pradesh.

The details of the existing network of UP Power transmission System as on 31st January 2022 is provided in the tables below:

Table 2.1-1: Total Existing Sub-Stations as on January 2022

<table>
<tr><th colspan="2">Voltage Level (kV)</th><th>132 KV</th><th>220 KV</th><th>400 KV</th><th>765 KV</th><th>Total</th></tr>
<tr><td rowspan="7">No. of Substations (Nos.)</td><td>UPPTCL</td><td>448</td><td>136</td><td>25</td><td>2</td><td>611</td></tr>
<tr><td>SEUPPTCL</td><td>0</td><td>1</td><td>1</td><td>1</td><td>3</td></tr>
<tr><td>WUPPTCL</td><td>0</td><td>0</td><td>5</td><td>2</td><td>7</td></tr>
<tr><td>GTL</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>PJFTL</td><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>OBTCL</td><td></td><td></td><td>1</td><td></td><td>1</td></tr>
<tr><td>Total</td><td>448</td><td>137</td><td>33</td><td>5</td><td>622</td></tr>
<tr><td rowspan="7">Transformation Capacity (MVA)</td><td>UPPTCL</td><td>57,437</td><td>51,340</td><td>31,640</td><td>13,000</td><td>1,53,417</td></tr>
<tr><td>SEUPPTCL</td><td>51</td><td>200</td><td>630</td><td>1,000</td><td>1,881</td></tr>
<tr><td>WUPPTCL</td><td>0</td><td>560</td><td>5,660</td><td>6,000</td><td>12,220</td></tr>
<tr><td>GTL</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>PJFTL</td><td>0</td><td>0</td><td>1,000</td><td>0</td><td>1,000</td></tr>
<tr><td>OBTCL</td><td>0</td><td>400</td><td>630</td><td>0</td><td>1,030</td></tr>
<tr><td>Total</td><td>57,488</td><td>52,100</td><td>39,560</td><td>20,000</td><td>1,69,548</td></tr>
<tr><td rowspan="6">Transmission Lines (Ckt. Km)</td><td>UPPTCL</td><td>25,006</td><td>13,433</td><td>6,379</td><td>1,085</td><td>45,904</td></tr>
<tr><td>SEUPPTCL</td><td rowspan="5">217</td><td rowspan="5">41</td><td rowspan="5">854</td><td rowspan="5">643</td><td rowspan="5">1755</td></tr>
<tr><td>WUPPTCL</td></tr>
<tr><td>GTL</td></tr>
<tr><td>PJFTL</td></tr>
<tr><td>OBTCL</td></tr>
</table>

Voltage Level (kV)		132 KV	220 KV	400 KV	765 KV	Total
	Total	***26,218***	***13,754***	***7,475***	***2,154***	***49,602***

2.2 Interconnections and Northern Region Load Dispatch Centre

UPPTCL's existing transmission system is a part of national grid under Northern Region comprising of neighbouring states, namely, Uttarakhand, Haryana, Rajasthan, etc. UPPTCL is also interconnected through natural inter-states lines with neighbouring states.

National Grid comprises of five regional grids which are synchronously interconnected. The UPPTCL power system is a part of the Northern Regional Grid of India for inter-state transaction. The Northern Grid is controlled from a unified regional load dispatch centre (NRLDC) at Delhi. The Northern Regional Load Dispatch Centre (NRLDC) is equipped with modern SCADA and Energy Management System (EMS) Software. The SCADA system is fully functional with applications like State Load Estimation, Economic Load Dispatch and security assessment. The NRLDC has modified its economic load dispatch software to take into account the Availability Based Tariff (ABT) and merit order operations of the generating plants. Further intra-state transmission system of UP is controlled by SLDC of UP.

The GoUP has notified "Power System Unit" as State Load Dispatch Centre (SLDC) on 24th January 2011. Presently, the SLDC is engaged in the demand side management as well as ABT management process on behalf of Discoms. Also, scheduling and energy accounting of Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd., Bajaj Energy, Lanco Anpara, Roza Thermal Power Plant, NTPC Tanda, etc. is being done by the SLDC. Separation of UPSLDC is in process as per the Uttar Pradesh Electricity Regulatory Commission (Fees & Charges of State Load Despatch Centre and other related matters) Regulations, 2020.

2.3 Transmission Losses

The transmission losses for FY 2020-21 was 3.37% against the approved losses of 3.40% by the Hon'ble Commission in the Business Plan Order dated 15th October 2020 for FY 2020-21.

2.4 Load Levels

The load centre power demands and their daily, monthly & yearly load levels and associated load power factors are important factors that influence the planning of the bulk transmission system. UPPTCL loads are generally scattered throughout the state with heavy demands in Varanasi, Allahabad, Lucknow, Kanpur, Agra, Meerut, Noida and Ghaziabad areas. The annual peak load generally occurs in summer months. The following tables typically show the yearly peak demand of previous years' current year peak demand respectively.

Table 2.4-1: Yearly System Peak in MW

Month	U.D.M
	MW
2007-08	10104
2008-09	10587
2009-10	10856
2010-11	11082
2011-12	12123
2012-13	14300
2013-14	15044
2014-15	15670
2015-16	16988
2016-17	17886
2017-18	20274
2018-19	21128
2019-20	22599
2020-21	23917
2021-22 (upto Feb'22)	25117

The overall installed generating capacity in the state of Uttar Pradesh as on 31st January 2022 is 29,130 MW as mentioned below:

Table 2.4-2: Installed Generating Capacity as on 31st January 2022

Ownership/ Sector	Mode wise breakup of Installed Capacity (in MW)				Grand Total
	Thermal	Nuclear	Renewable		
			Hydro	RES (MNRE)	
State	6,129	0	724	49	6,902
Private	8,814	0	842	4,374	14,031
Central	6,020	289	1,858	30	8,197
Sub-Total	**20,963**	**289**	**3,424**	**4,453**	**29,130**

The generating capacities expected to be commissioned within the state during the MYT plan period (i.e. from FY 2020-21 to FY 2024-25):

Table 2.4-3: Generating Capacities expected to be Commissioned upto FY 2024-25

Projects	Plant Capacity (MW)	COD (Expected) as per the Business Plan petition	Revised COD
Ghatampur TPS	3x660	Unit-1 - Mar'2021	Sep'2022
		Unit-2 - Oct'2021	Jan'2023
		Unit-3 - Mar'2022	May'2023
Obra-C TPS	2x660	Unit-1 - Dec'2021	Sep'2022
		Unit-2 - April'2022	Mar'2023

Projects	Plant Capacity (MW)	COD (Expected) as per the Business Plan petition	Revised COD
Jawaharpur TPS	2x660	Unit-1 - Dec'2021	Sep'2022
	2x660	Unit-2 - April'2022	May'2023
Panki TPS	1x660	Sep'2022	Mar'2023
Khurja STPP	2x660	Unit-1 - Nov'2023	Dec'2023
		Unit-2 - May'2024	May'2024

Table 2.4-4: Generating Capacities already Commissioned during the plan period (i.e. FY 2020-21 to FY 2024-25)

Projects	Plant Capacity (MW)	COD (Expected) as per the Business Plan petition	COD
Tanda II TPS	2x660	Unit-2 - Oct'2020	1st April 2021 (Commissioned)
Harduaganj Ext. Stage-II TPS	1x660	Dec'2020	9th February 2022 (Commissioned)

Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA) has planned 4000 MW Solar Power Projects in the Bundelkhand region for which UPPTCL has envisaged InSTS network under GEC-II Scheme at total project cost of Rs. 5011 crore. The Cabinet Committee on Economic Affairs (CCEA), approved the scheme on Green Energy Corridor (GEC) Phase-II for Intra-State Transmission System (InSTS) on 6th January 2022. Further, the Cabinet of Uttar Pradesh has also approved the scheme on Green Energy Corridor (GEC) Phase-II on 7th January 2022. The copy of CCE approval dated 6th January 2022 and GoUP approval vide Letter No. dated 7th January 2022 is attached herewith as **Annexure 11**. Out of the planned capacity of 4000 MW the following solar projects are planned as Ultra Mega Renewable Energy Power Park (UMREPP), which has received approval of MNRE/UPNEDA. Besides 175 MW under the various stages of bidding by UPNEDA as on date of submission:

Table 2.4-5: Solar Projects Planned under the UMREPP

Capacity (MW)	Developer	District
1200	TUSCO (JV of THDC & UPNEDA)	Jhansi & Lalitpur
1200	BSUL (JV of NHPC & UPNEDA)	Jalaun
800	TUSCO (JV of THDC & UPNEDA)	Chitrakoot

The remaining capacity will be developed progressively through competitive bidding by UPNEDA.

2.5 Physical and Financial Progress

The progress of key physical, financial and operational parameters for FY 2020-21 to FY 2022-23 with respect to the Business Plan Petition for the Control period form FY 2020-21 to FY 2024-25 is provided below:

Table 2.5-1: Progress of Physical, financial and operation parameters for FY 2020-21 to FY 2022-23

Particulars	FY 2020-21		FY 2021-22		FY 2022-23	
	As per the Business Plan Petition	Actual	As per the Business Plan Petition	Revised Estimates	As per the Business Plan Petition	Revised Estimates
Peak Demand (MW)	23,800	23,867	26,500	24,795 (actual upto Feb'22)	28,000	27,212
Transmission Losses (%)	3.41	3.37	3.33	3.33	3.27	3.27
CAPEX (Rs. crore)	4,810	3,202	6,393	3,527	6,525	4,357
No. of Sub-Stations						
132 kV	29	16	18	7	22	18
220 KV	16	5	26	16	16	15
400 kV	7	2	6	6	3	-
765 kV	-	-	2	2	1	-
Total Sub-Stations	52	23	52	31	42	33
MVA Capacity						
132 kV	6,584	3,337	2,892	1,716	3,966	2,688
220 KV	7,840	2,480	10,789	7,460	5,676	4,620
400 kV	7,430	1,900	10,312	8,445	2,950	1000
765 kV	1,500	-	6,000	6,000	4,500	-
Total MVA	23,354	7,717	29,993	23,621	17,092	8,308

There is some deviation in the network addition w.r.t those planned as per the Business Plan petition considering the Governments approval of extension of timelines, across the board, due to COVID-19 impact as well as funding crunch from Government of Uttar Pradesh (GoUP) to take up important projects only due to austerity measures.

3 True up Petition for FY 2020-21

3.1 True-up Summary for FY 2020-21

The Petitioner seeks true-up of expenses for the FY 2020-21 as per the audited accounts as applicable for various heads of expenditure. The audited accounts for FY 2020-21 are enclosed herewith and marked as '**Annexure 2**'.

The following table summarises the truing up computations for FY 2020-21 for approval by the Hon'ble Commission. The Petitioner also provides the details of truing up in the subsequent paragraphs:

Table 3.1-1: True Up Summary for FY 2020-21

(All figures in Rs. Crore)

Particulars	As per order dated 10th November 2020	Actual as per Audited Accounts	True-up Petition
O&M Cost	962.01	1098.19	1402.18
Employee cost	*607.29*	*584.72*	*968.81*
A&G expenses	*47.08*	*64.82*	*56.76*
R&M expenses	*307.64*	*448.65*	*376.61*
Interest on Loan Capital	1,187.47	1,386.85	1,395.76
Interest on Working Capital	34.22	0.00	47.49
Finance Charges	-	0.06	
Depreciation	988.62	1,391.78	1,355.45
Gross Expenditure	**3,172.32**	**3,876.88**	**4,200.88**
Less: Employee cost capitalized	371.63	240.26	240.26
Less: A&G Capitalisation	0.00		0.00
Less: Interest Capitalisation	298.36	197.47	197.47
Net Expenditure	**2,502.33**	**3,439.15**	**3,763.15**
Provision for Bad & Doubtful debts	0.00	0.00	
Prior Period Items, Debits, write-offs & other expenses/Comprehensive Incomes	0.00	136.85	
Net Expenditure with provisions	**2,502.33**	**3,576.00**	**3,763.15**
Add: Return on Equity	162.17	-	171.01
Less: Non-Tariff Income	75.36	262.48	132.86
Annual Revenue Requirement (ARR)	**2,589.14**	**3,313.53**	**3,801.31**
Revenue from Operations		**3,302.21**	**3,302.21**
True-up Adjustment of FY 2019-20		867.93	*867.93*
Revenue pertaining to FY 2020-21		2,434.28	2,434.28
Net Gap / (Surplus)	**-**	**879.25**	**1,367.02**
Energy Delivered (MUs)	1,08,890.33	1,19,091.98	1,19,091.98
Transmission Tariff (Rs./kWh)	0.2378	0.2782	0.3192

The Petitioner requests the Hon'ble Commission to allow truing up for FY 2020-21 as provided in the aforementioned table. The Petitioner is detailing the rationale for truing up of some of the key issues in the subsequent paragraphs.

3.2 Operation and Maintenance Expenses

Operation & Maintenance expenses comprise of Employee costs, Administrative & General (A&G) Expenses and Repair & Maintenance (R&M) expenses. The Regulation 34 of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, issued by the Hon'ble Commission stipulates:

"34. Operation & Maintenance Expenses

a) *The Operation and Maintenance expenses for the Transmission Business shall be computed as stipulated in with these Regulations.*
b) *The Operation and Maintenance expenses shall be derived on the basis of the average of the Trued-Up values (without efficiency gain / loss) for the last five (5) financial years ending March 31, 2019 subject to prudence check by the Commission. However, if Trued-Up values (without efficiency gain / loss) are not available for FY 2018-19, then last five (5) available Trued-Up values (without efficiency gain / loss) will be considered and subsequently when the same are available the base year value (i.e. FY 2019-20) will be recomputed.*
c) *The average of such operation and maintenance expenses shall be considered as Operation and Maintenance expenses for the middle year and shall be escalated year on year with the escalation factor considering CPI and WPI of respective years in the ratio of 60:40, for subsequent years up to FY 2019-20.*
d) *The One-time expenses such as expense due to change in accounting policy, wage arrears paid due to Pay Commissions, etc., and the expenses beyond the control of the Transmission Licensee such as dearness allowance, terminal benefits, etc., in Employee cost, may be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check.*
e) *At the time of Truing-up of the O&M expenses, the actual point to point inflation over Wholesale Price Index numbers as per Office of Economic Advisor of Government of India and the actual Consumer Price Index for Industrial workers (all India) as per Labour Bureau, Government of India, in the concerned year shall be considered."*

In line with the above regulations the Petitioner has worked out the base year O&M expenses i.e. for FY 2019-20. The Petitioner has considered the True-up O&M expenses for the FY 2015-16 to FY 2016-17 as allowed by the Hon'ble Commission in the true-up orders. Further, the Petitioner has considered the normative O&M Expenses as per the true-up Petitions for FY 2017-18 to FY 2019-20. The Hon'ble Commission in its order dated 10th November 2020 and 29th June 2021 while truing-up of the O&M expenses for the FY 2017-18, FY 2018-19 & FY 2019-20 had considered the lower of the normative and actual O&M expenses. The Petitioner has also filed a review petition in this regard and the same is pending before the Hon'ble Commission. In light of the same, the Petitioner has considered the normative O&M Expenses as per the true-up Petitions for FY 2017-

18 to FY 2019-20 for arriving at the base year norms. The base year O&M expenses for FY 2019-20 are as mentioned below:

Table 3.2-1: Base year O&M Expenses as per the MYT Regulations 2019

(Rs. crore)

Particulars	True-up Expenses (Rs. crore)					Avg. Expenses for Mid-year	Normative Expenses Considered (upto base year)	
	FY 2015-16	FY 2016-17	FY 2017-18*	FY 2018-19*	FY 2019-20*	FY 2017-18	FY 2018-19	FY 2019-20
Employee Expenses	473.99	513.86	848.56	1054.67	1227.95	823.80	866.63	920.06
A&G Expenses	28.35	62.51	38.14	37.81	54.16	44.20	46.49	49.36
R & M Expenses	167.81	205.35	344.94	423.70	495.72	327.50	344.53	365.77
WPI & CPI Combined Inflation Rate Considered (%)							*5.20%*	*6.17%*

**Normative Expenses as per the True-up Petitions*

Based on the O&M expenses for the FY 2019-20 as worked out in the table above the Petitioner has computed the allowable O&M expenses for FY 2020-21 as mentioned in the table below:

Table 3.2-2: O&M Expenses for FY 2020-21 as per the MYT Regulations 2019

(Rs. crore)

Employee Expenses	**FY 2019-20 (Base-Year)**	**FY 2020-21 (True-up Petition)**
CPI Inflation Index (%)	-	5.30%
Gross Employee Costs and Provisions	920.06	968.81
Less: Employee expenses capitalized	255.21	240.26
Net Employee Expenses	**664.86**	**728.55**
A&G Expenses	**FY 2019-20 (Base-Year)**	**FY 2020-21 (True-up Petition)**
WPI Inflation Index (%)	-	2.96%
Gross A&G Expenses (i+ii+iii)	**49.36**	**56.76**
i. Normative A&G Expenses		*50.82*
ii. Licensee Fee		*5.88*
iii. Finance Charges		*0.06*
Less: A&G Expenses Capitalised	0	0
Net A&G Expenses	**49.36**	**56.76**
R & M Expenses	**FY 2019-20 (Base-Year)**	**FY 2020-21 (True-up Petition)**
WPI Inflation Index (%)	-	2.96%
R & M Expenses	**365.77**	**376.61**
Net O&M Expenses	**1079.99**	**1161.92**

The employee expense capitalisation for the FY 2020-21 is considered as per the actual capitalisation in the annual accounts for FY 2020-21.

The Petitioner further submits that the Hon'ble Commission while allowing the O&M expenses in the MYT ARR for the 1st Control Period (FY 2018-19 to FY 2019-20) in its orders dated 30th November 2017, 8th January 2019 and 27th August, 2019 respectively has consistently used the approach stipulated in the Regulation 21 of the MYT Transmission Regulations 2014 issued by the Hon'ble Commission.

However, in the Order dated 10th November 2020 and 29th June 2021, the Hon'ble Commission, while determining the true up O&M expenses for FY 2017-18, FY 2018-19 & FY 2019-20 of the Petitioner, has approved the lower of normative or actual for each element of O&M, i.e. Employee Expense, R&M & A&G. The Hon'ble Commission has mentioned in its Order dated 10th November, 2020, that it has taken such an approach based on its Order dated 03.09.2019 in the matter of True-up Order of FY 2017-18 for State owned Discoms. The relevant extract of the Order dated 10th November, 2020 is reproduced below:

"4.7.19 It is observed that the Petitioner has submitted that it has reduced the actual O&M expenses wrt the normative O&M expenses and hence it has claimed the amount on account of sharing of the gains due to efficiency in the operation and maintenance (O&M) expenditure as compared to the actual O&M expenditure incurred during FY 2017-18. The net gain claimed due to efficiency is Rs. 264.14 crore, 50% of gain is shared with the consumers i.e. Rs. 132.07 Crores as per the Regulation 11 of UPERC MYT Regulations, 2014.

4.7.20 The Commission, vide order dated 03.09.2019 in the matter of True-up Order of FY 2017-18 for State owned Discoms was of the view that there is a wide variation between normative and actual parameters of O&M expenses, which cannot be on the account of efficiency of the Petitioners. The relevant extracts are as under:

> *Quote*
>
> *"4.5.10 The Commission observed that there is a large variation in the normative and actual O&M Expenses. It should be noted that the Business Plan for the MYT Control Period was prepared taking into consideration, higher sales, power purchase, O&M etc. In its current filings the Licensees have shown considerable reduction in all the components, like lower sales, power purchase, O&M expenses etc. which resulted in vast variation in all the parameters. The sharing of gains is allowed for incentivisation of efficiency. It is for sure that such wide variations cannot be on account of the efficiency of the licensees. Hence, the Commission is not allowing the sharing of O&M Expenses. Further, the Commission directs the Licensees to submit the detailed explanation for this variation in its next filings.*
>
> *4.5.11 The Petitioners have considered lower of the total O & M expenses as per normative or Audited Accounts. However, the Commission while allowing the O&M expenses, has considered the "lower of normative or actual for each element of O&M, i.e. Employee Expense, R&M & A&G" otherwise the purpose of having individual norms of Employee Expenses, A&G Expenses, and R&M Expenses will be affected."*
>
> *Unquote*

***4.7.21 As per above, the Commission has taken a view to allow the "lower of normative or actual for each element of O&M, i.e. Employee Expense, R&M & A&G". It is further pertinent to mention, that the above approach of the Commission is sub judice before Hon`ble APTEL. Since, the provisions applicable for O&M expenses are same for both State owned Discoms and UPPTCL under both the MYT Regulations 2014, therefore it would be prudent to consider the same approach for UPPTCL also**."*

(Emphasis supplied)

Further, the Hon'ble Commission in the tariff order dated 29th June 2021 while truing-up the O&M expenses for FY 2019-20 has observed as follows:

> *"4.7.22 The Commission, keeping in view the benefit of the consumers, while allowing the O&M expenses, has considered the "lower of normative or actual expense for each element of O&M, i.e. Employee Expense, R&M & A&G" separately. Accordingly, the Commission has approved the O&M expenses in the Tables below:"*

As can be observed from the highlighted portion above, the State owned discoms have challenged the Order dated 3rd September, 2019 and thus the approach of the Hon'ble Commission is sub judice before the Hon'ble APTEL.

The Petitioner submits that the approach of the Hon'ble Commission in Order dated 10th November, 2020 and 29th June 2021 deviates from the approach stipulated in the MYT Tariff Regulations 2014, which has been consistently followed in the Orders dated 30th November 2017, 8th January 2019 and 27th August, 2019. Moreover, the State owned discoms, have also challenged the new approach of the Hon'ble Commission vide an Appeal in the Hon'ble APTEL against the Order dated 3rd September, 2019.

The Petitioner humbly submits that the MYT Transmission Regulations 2014 provides for determination of O&M expenses on **normative basis**.

While allowing the ARR/Tariff for control period FY 2017-18 to FY 2019-20 in its Tariff order dated 30.11.2017 at para 7.6.4 the following is being mentioned: -

> *"7.6.4 The Commission has provided UPPTCL with a methodology for Computation of O&M expenses as per Transmission MYT Regulation, 2014 and the same was accepted by the petitioner. The petitioner has computed and submitted the O&M expenses in line with the methodology provided by the Commission. Accordingly, the submission of the petitioner and the approach adopted by the Commission for approving various components of O&M expenses.......".*

In the said tariff order the Commission have decided the O&M expenses as per norms mentioned in MYT Transmission Regulations 2014. Further, in tariff orders dated 08.01.2019 for FY 2018-19 and in tariff order dated 27.08.2019 for FY 2019-20 the Hon'ble Commission, adopting the normative approach, have allowed the O&M expenses as per the provisions of MYT Regulation, 2014. Therefore, the Petitioner submits that the normative O&M expenses may be considered for the period from FY 2017-18 to FY 2019-20 to arrive at the base year expenses for the FY 2019-20. Accordingly, the O&M expenses for the FY 2020-21 shall be approved.

It is also imperative to mention that the normative R&M expenses i.e. Rs. 376.61 crore as worked out in the above table in line with the Regulation 34 of the MYT Regulations 2019 is significantly lower than the actual R&M expenses of Rs. 448.65 crore for the FY 2020-21. Further, the normative R&M expenses of FY 2020-21 are also lower than the normative expenses of the previous years as per the MYT Transmission Regulations 2014. Similarly, the normative A&G expenses are also lower than the actual expenses for the year and normative A&G expenses of previous years. Therefore, it is submitted the overall normative O&M expenses of Rs. 1161.92 crore shall be allowed for true-up of FY 2020-21 as mentioned below:

Table 3.2-3: O&M Expenses for FY 2020-21

(Rs. crore)

Particulars	Approved as per Tariff Order dated 10.11.2020	Audited	True-up Petition
Employee cost	607.29	584.72	968.81
A&G expenses	47.08	64.82	56.76
R&M expenses	307.64	448.65	376.61
Gross O&M Expenses	**962.01**	**1,098.19**	**1,402.18**
Less: Employee cost capitalized	*371.63*	*240.26*	*240.26*
Net O&M Expenses	**590.38**	**857.93**	**1,161.92**

3.3 Gross Fixed Assets, Capital Formation and Financing

The Hon'ble Commission in the tariff orders dated 10th November 2020 and 29th June 2021 has disallowed 25% of the capital investment for FY 2017-18 to FY 2019-20 as the Petitioner has not taken prior approval of the assets/schemes of value above Rs. 10 crore. Subsequently, the Hon'ble Commission has also made disallowance in the gross fixed asset (GFA) and capital work in progress (CWIP) for the period from FY 2017-18 to FY 2019-20. The Petitioner has filed a review petition seeking the review of the disallowance in the capital investment in the above tariff orders and subsequent disallowance in the GFA & CWIP. The same is pending before the Hon'ble Commission.

In light of the same and considering the Capital Work in Progress balances (CWIP) and Gross Fixed Asset (GFA) balances as per annual accounts, the Petitioner has derived the actual capital investments undertaken by it in FY 2020-21. The details are provided in the table below:

Table 3.3-1: Capital Investments in FY 2020-21

(All figures in Rs Crore)

Particulars	Derivation	FY 2020-21
Opening WIP as on 1st April	A	7,793.56
Investments	B	3,246.08
Employee Expenses Capitalisation	C	240.26
A&G Expenses Capitalisation	D	0.00

Particulars	Derivation	FY 2020-21
Interest Capitalisation on Interest on long term loans	E	197.47
Total Investments	**F= A+B+C+D+E**	11,477.38
Transferred to GFA (Total Capitalisation)	G	3,519.05
Closing WIP	**H= F-G**	7,958.32

The details of the assets/schemes approved by the Hon'ble Commission in FY 2020-21 is provided in the **Annexure 8**. The table below summarises the amounts received towards consumer contributions, capital grants and subsidies in FY 2020-21:

Table 3.3-2: Consumer Contributions, Capital Grants and Subsidies in FY 2020-21

(All figures in Rs. Crore)

Particulars	FY 2020-21
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	1,548.05
Additions during the year	504.34
Less: Amortisation	129.6203
Closing Balance	**1,922.78**

Thus, the eligible financing of the capital investment is depicted in the table below:

Table 3.3-3: Financing of the Capital Investments in FY 2020-21

(All figures in Rs Crore)

Particulars	Derivation	FY 2020-21
Investment	A	3,246.08
Less:		
Consumer Contribution	B	504.34
Investment funded by debt and equity	C=A-B	2,741.74
Debt Funded	70%	1,919.22
Equity Funded	30%	822.52

Thus, from the above tables it is seen, that the Petitioner has made an investment of Rs. 3,246.08crore in FY 2020-21. The details of the assets energised during the FY 2020-21 is provided in the **Annexure 5**.

The consumer contributions, capital subsidies and grants received during the corresponding period is Rs. 504.34 crore. Thus, balance Rs. 2,741.74 crore have been funded through debt and equity. Considering a debt equity ratio of 70:30, Rs. 1,919.22 crore or 70% of the capital investment is considered to be funded through debt and balance 30% equivalent to Rs. 822.52 crore through equity. The GFA balance considered for the FY 2020-21 is provided below:

Table 3.3-4: Projections of Gross Fixed Assets for FY 2020-21

(All figures in Rs. Crore)

Particulars	Derivation	FY 2020-21
Opening GFA	A	28,543.10
Net Addition to GFA	B	3,336.48
Closing GFA	C=A+B	31,879.58

Further, in line with the Regulation 20.2 and the methodology considered by the Hon'ble Commission the fixed asset base (in which the retirement or replacement or de-capitalisation of the assets is accounted for) computed as on 31.03.2020 (taking into consideration the true-upto FY 2019-20), the equity capital as on 1.4.2020, has been computed to the extent of 30% of such fixed asset base and the debt capital has been computed to the extent of 70% of such fixed asset base. Accordingly, the Debt and equity as on 1.4.2020, computed for FY 2020-21 is shown below:

Table 3.3-5: Projections of Opening Equity & Loan

(All figures in Rs. Crore)

Particulars	Derivation	FY 2020-21
Opening GFA	A	28,543.10
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	B	1,548.05
Net Opening GFA	C=A-B	26,995.05
Opening Debt	E=C*70%	18,896.53
Opening Equity	D=C*30%	8,098.51

Further, the Regulation 32.2 of the MYT Regulations 2019 provides as:

> *"32.2 The Capital Investment Plan shall be a least cost plan for undertaking investments. However, all capital expenditure projects of 220 kV and above and other capital expenditure of value exceeding Rs. Twenty Crore, must have prior approval of the Commission on quarterly basis, and will be subject to prudence check."*

The Petitioner in line with the above regulations is seeking prior approval of the Hon'ble Commission for the new schemes/projects planned or to be undertaken during the period from FY 2020-21 to FY 2024-25. The details of the assets/projects where the Petitioner has approached the Hon'ble Commission for prior approval is provided in the **Annexure 8.**

3.4 Depreciation Expense

Regulation 21 of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, provide for the basis of charging depreciation. The relevant excerpt is reproduced below:

> ***"21 Depreciation:***
>
> *The approved original cost of the fixed assets shall be the value base for calculation of Depreciation:*

Provided that the Depreciation shall be allowed on the entire capitalised amount of the new assets after reducing the approved original cost of the retired or replaced or de-capitalised assets.

Depreciation shall be computed annually based on the Straight- Line Method at the rates stipulated in the Annexure- A of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019.

Provided that the Licensee 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 shall be spread over the balance Useful Life of the asset including the Extended Life, as per submission of the Licensee and approved by the Commission.

The salvage value of the asset shall be considered at 10% of the allowable capital cost and Depreciation shall be allowed up to a maximum of 90% of the allowable capital cost of the asset:

Provided that land owned shall not be treated as a Depreciable asset and shall be excluded while computing Depreciation:

Provided further that Depreciation shall be chargeable from the first year of commercial operation.

Depreciation shall not be allowed on assets funded by Consumer Contributions or Subsidies/ Grants/ Deposit works.

21.2 In case of existing assets, the balance depreciable value as on April 01, 2020, shall be worked out taking into consideration the life of the asset, and by deducting the cumulative Depreciation as admitted by the Commission up to March 31, 2020, from the gross depreciable value of the assets.

21.3 In case of projected commercial operation of the assets for part of the year, depreciation shall be computed based on the average of opening and closing value of assets.

21.4 Depreciation shall be re-computed for assets capitalised at the time of Truing-Up, based on Audited Accounts and documentary evidence of assets capitalised by the Petitioner, subject to the prudence check of the Commission."

The Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019 provides for calculating depreciation based on the Straight – Line Method basis, whereas the previous MYT Transmission Regulations, 2014 provides for calculation of depreciation on written down value of the fixed assets of the corresponding year. Further, for the allowable depreciation for the assets capitalized upto till 31st March 2020 and those capitalized 1st April 2020 onwards the Hon'ble Commission has observed the following in the order dated 10th November 2020:

"7.5.8 Accordingly, the existing assets are to be dealt with separately as per Regulations 21.2 and their Net block (as on 31.3.2020) may be kept separate and

may be considered Gross Block to apply SLM from 1.4.2020 onwards and the new assets to be dealt as per Regulations 21.1 of MYT Regulations 2019.

7.5.9 Further, UPPTCL is directed to maintain a separate individual asset wise FAR for assets capitalized after 1.4.2020 and the Gross Block and Depreciation may be computed separately from the Gross Block before 1.4.2020. Accordingly, from FY 2020-21 onwards UPPTCL to maintain two separate Gross Blocks (one for assets upto 31.3.2020 (Part-A) and second for assets after 1.4.2020 (Part B) and two separate FAR`s depicting addition of assets details from 01.04.2020 onwards for the purpose of depreciation computation for Regulatory Accounts."

Accordingly, the Hon'ble Commission has allowed the depreciation for the gross block upto 31st March 2020 (Part-A) and that capitalized 1st April 2020 onwards (Part-B) separately in the tariff orders dated 10th November 2020 and 29th June 2021.

Further, for the purpose of computing the allowable depreciation, the Petitioner has considered normative closing gross fixed asset base for FY 2019-20 and subsequent addition and the yearly capitalizations for the FY 2020-21 as per the annual accounts. Further the Petitioner has computed the asset-wise depreciation as per the rates provided in the Annexure A of the MYT Regulations 2019 based on the normative opening and closing gross fixed asset base for FY 2020-21. The Petitioner in line with the above regulations and methodology adopted by the Hon'ble Commission in the order dated 10th November 2020 has computed the allowable depreciation for the Part-A & Part-B as mentioned below:

Table 3.4-1: Depreciation Expense for FY 2020-21 for the Gross Block upto 31st March 2020 (Part-A)

(All figures in Rs Crore)

Particulars	Opening GFA	Additions to GFA	Deductions to GFA	Closing GFA	Depreciation Rate (%)	Allowable Depreciation
Land & Land Rights						
i) Unclassified	141.97	1.31	43.84	99.45	0.00%	-
ii) Freehold Land	1.26	0.09	1.29	0.06	0.00%	-
Buildings	1085.14	145.76	0.87	1230.03	3.34%	38.66
Other Civil Works	91.63	11.91	0.00	103.54	3.34%	3.26
Plants & Machinery	12822.19	1435.39	456.06	13801.52	5.28%	702.87
Lines, Cable Network etc.	11314.74	1707.37	35.50	12986.62	5.28%	641.56
Vehicles	3.37	0.00	0.06	3.31	9.50%	0.32
Furniture & Fixtures	8.74	1.23	0.00	9.98	6.33%	0.59
Office Equipments	9.55	2.56	0.00	12.11	6.33%	0.69
Jeep & Motor Car	0.00	0.00	0.00	0.00	9.50%	-
Intangible Assets	4.27	0.03	0.00	4.30	5.28%	0.23
Assets taken over from Licensees pending final Valuation	105.44	4.74	0.57	109.61	5.28%	5.68
Total Depreciable Assets	**25445.07**	**3309.00**	**493.05**	**28261.03**	**6.71%**	**1393.84**
Total Non-Depreciable Assets	**143.23**	**1.41**	**45.13**	**99.50**		**0.00**
GRAND TOTAL	**25588.30**	**3310.41**	**538.18**	**28360.53**	**0.07**	**1393.84**

Note: Deductions in the GFA during the FY 2020-21 is considered in the Part A.

Table 3.4-2: Depreciation Expense for FY 2020-21 for the Gross Block or Assets Capitalised 1st April 2020 onwards (Part-B)

(All figures in Rs Crore)

Particulars	Opening GFA	Additions to GFA	Deductions to GFA	Closing GFA	Depreciation Rate (%)	Allowable Depreciation
Land & Land Rights						
i) Unclassified	0.00	16.73		16.73	0.00%	-
ii) Freehold Land	0.00	0.00		0.00	0.00%	-
Buildings	0.00	118.62		118.62	3.34%	1.98
Other Civil Works	0.00	9.69		9.69	3.34%	0.16
Plants & Machinery	0.00	1531.44		1531.44	5.28%	40.43
Lines, Cable Network etc.	0.00	1832.08		1832.08	5.28%	48.37
Vehicles	0.00	0.01		0.01	9.50%	0.00
Furniture & Fixtures	0.00	1.21		1.21	6.33%	0.04
Office Equipments	0.00	0.97		0.97	6.33%	0.03
Jeep & Motor Car	0.00	0.00		0.00	9.50%	-
Intangible Assets	0.00	4.41		4.41	5.28%	0.12
Assets taken over from Licensees pending final Valuation	0.00	3.88		3.88	5.28%	0.10
Total Depreciable Assets	**0.00**	**3502.32**	**0.00**	**3502.32**	**5.21%**	**91.23**
Total Non-Depreciable Assets	**0.00**	**16.73**	**0.00**	**16.73**		**0.00**
GRAND TOTAL	**0.00**	**3519.05**	**0.00**	**3519.05**	**0.05**	**91.23**

The depreciation on assets created out of consumer contributions, capital grants and subsidies for FY 2020-21 are considered as per the actuals as in the annual accounts of FY 2020-21. The Petitioner has reduced the equivalent depreciation amounting to Rs. 129.62 crore for FY 2020-21 in respect of depreciation on assets created out of consumer contributions, capital grants and subsidies. Thus, the allowable depreciation claimed for FY 2020-21 has been depicted in the table below:

Table 3.4-3: Gross Allowable Depreciation for FY 2020-21

(All figures in Rs Crore)

Particulars	FY 2020-21
Allowable Depreciation for assets upto 31.03.2020	1393.84
Allowable Depreciation for assets capitalised 01.04.2020	91.23
Gross Allowable Depreciation	**1485.07**
Less: Equivalent amount of depreciation on assets acquired out of the consumer contribution and GoUP Subsidy	129.62
Net Allowable Depreciation	**1355.45**

The Petitioner further submits that in compliance to the provisions of Appendix 'C' to lndAS-I8, FY 2016-17 onwards the Consumer Contribution Reserve has been recognized as revenue as equal annual income over the useful life of the underlying asset/term of the arrangement with consumers. However, the Hon'ble Commission its order dated 8th January 2019 and 27th August 2019 while approving the revised ARR for FY 2018-19 & FY 2019-20 has allowed the net depreciation after deducting the equivalent amount of depreciation on assets acquired out of the consumer contribution. The petitioner has considered the same approach while claiming the net deprecation amount for FY 2020-21. The Income from Consumer Contribution recognized as revenue (or equivalent depreciation amount) in annual accounts of FY 2020-21."

Thus, the Petitioner requests the Hon'ble Commission to allow the net depreciation amount of Rs. 1,355.45 crore for FY 2020-21.

3.5 Interest on Long Term Loans

It is reiterated that the Petitioner has considered a normative tariff approach with a gearing of 70:30. In this approach, 70% of the capital expenditure undertaken in any year has been considered to be financed through loan and balance 30% has been considered to be funded through equity contributions. The Hon'ble Commission in the order dated 10th November 2020 has considered the normative opening of the loan as mentioned below:

> *"7.6.5 As per the Regulation 23.2, the normative long term loan outstanding as on April 1, 2020, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2020, from the gross normative loan as shown below:"*

Accordingly, the normative opening loan as on 1st April 2020 is worked out as below:

Table 3.5-1: Opening Normative Loan as on 1st April 2020

(All figures in Rs Crore)

Particulars	Derivation	FY 2020-21
Opening Debt	A	18,896.53
Cumulative Net Depreciation upto 31.3.2020	B	7,490.39
Opening Normative Loan	C=A-B	11,406.15

Further, for the purpose of the computation of the normative interest on loan the Petitioner has considered the loan addition as 70% of the actual capitalisation after adjusting the consumer contribution and grants. The portion of capital expenditure financed through consumer contributions, capital subsidies and grants has been separated as the depreciation and interest thereon has not been charged to the beneficiaries.

Allowable depreciation for the year has been considered as normative loan repayment. The weighted average rate of interest of overall long term loan portfolio for FY 2020-21 is 11.84% and the same has been considered as per the actuals. The computation of the Weighted Average Interest Rate on Long-Term Loan portfolio in FY 2020-21 is provided in **Annexure 4.** The interest capitalisation has been considered at a rate of 14.15% for FY 2020-21 which is the actual capitalization rate for FY 2020-21 as per the annual accounts. The computations for interest on long term loan are depicted below:

Table 3.5-2: Allowable Interest on Long Term Loans for FY 2020-21

(All figures in Rs Crore)

Particulars	2020-21
Opening Loan	11,406.15
Loan Additions (70% of Investments)	2,110.30
Less: Repayments (Depreciation allowable for the year)	1,355.45
Closing Loan Balance	12,160.99
Weighted Average Rate of Interest (%)	11.84%
Interest on long term loan	1,395.76
Interest Capitalisation Rate (%)	14.15%
Less: Interest Capitalized	197.47
Net Interest Charged	**1,198.29**

3.6 Interest on Working Capital

Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, provides for normative interest on working Capital based on the methodology outlined in the Regulations. The interest on working capital has been computed based on the methodology specified in the Regulation 25 as provided below:

"The working capital requirement of the Transmission Licensee shall cover:

i. Operation and maintenance expenses for one month;

ii. Maintenance spares at 40% of the R&M expenses for two months; and

iii. One-and-a-half-month equivalent of the expected revenue from transmission charges at the prevailing Tariff;

minus

(iv) Amount held as security deposits, if any, from Transmission System Users:

Provided further that for the purpose of Truing- Up for any year, the working capital requirement shall be re-computed on the basis of the values of components of working capital approved by the Commission in the Truing- Up;

Rate of interest on working capital shall be simple interest and shall be equal to the SBI MCLR (1 Year) on October 01, 2019 plus 250 basis points:

Provided that for the purpose of Truing- Up for any year, simple interest on working capital shall be allowed at a rate equal to the weighted average SBI MCLR (1 Year) prevailing during the concerned Year plus 250 basis points."

In accordance with the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, the interest on the working capital requirement is considered as the "weighted average SBI MCLR (1 Year) prevailing during the concerned Year plus 250 basis points" i.e. 9.57%. The Petitioner has, in accordance with the above mentioned MYT Regulations 2019, claimed the interest on working capital which is shown in the table below:

Table 3.6-1: Interest on Working Capital for FY 2020-21

(All figures in Rs Crore)

Particulars	FY 2020-21
One Month of O&M Expenses	116.85
Maintenance spares @ 40% of R&M expenses for two month	25.11
Receivable equivalent to 45 days average billing of consumers	354.00
Less: Security deposits from consumers	
Total Working Capital Requirement	**495.96**
Interest rate (%)	9.57%
Interest on working capital	**47.49**

3.7 Reasonable Return/ Return on Equity

Under provisions of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, the Petitioner is eligible to a return of @ 14.5% on equity base; for equity base calculation debt equity ratio shall be 70:30. Where equity involved is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30%. Equity amounting to more than 30% shall be considered as loan. In case of actual equity employed being less than 30%, actual debt and equity shall be considered for determination of tariff. In this Petition, the return on equity has been computed as per methodology adopted by Hon'ble Commission in the previous Tariff Orders.

In view of the huge gap in the recovery of cost of supply at the Discoms' level, Petitioner is of the view that return on equity would only result in increase in arrears and accumulation of receivables. As such, the Petitioner has been claiming the return on equity @ 2% since the financial year 2009-10 onwards. Return on equity has been computed on the normative equity portion (30%) of capitalised assets.

The Petitioner has computed the eligible return on equity by considering the opening normative equity as on 1st April 2020 as discussed above. Subsequently, it has considered the normative equity closing based on the capital additions for the FY 2020-21 depicted in aforementioned sections.

Thus, the claimed return on equity for FY 2020-21 has been computed to be Rs. 171.01 crore for FY 2020-21 as depicted in the table below:

Table 3.7-1: Allowable Return on Equity for FY 2020-21

(All figures in Rs Crore)

Particulars	Derivation	FY 2020-21
Equity at the beginning of the year	A	8,098.51
Assets Capitalised	B	3,519.05
Addition to Equity	C = 30% of B	904.41
Closing Equity	D = A + C	9,002.93
Average Equity	E = Average of A & D	8,550.72
Rate of Return (%)	F	2.00%
Return on Equity	**G = E x F**	**171.01**

3.8 Non-Tariff Incomes

The Petitioner submits that against the approved non-tariff income of Rs. 75.36 crore in the Tariff Order dated 10th November 2020, the actual non-tariff income as per the audited accounts of FY 2020-21 is Rs. 262.48 crore. Further, as per the FY 2020-21 annual accounts the income from Consumer Contribution is to the tune of Rs. 129.62 crore is also recognized under the other income which has been already deducted from the gross allowable depreciation in the section above. Thus, the net non-tariff considered for FY 2020-21 is Rs. 132.86 crore for truing-up.

3.9 Revenue side Truing up

The Petitioner submits that the gross transmission charges in FY 2020-21, are to the tune of Rs. 3,302.21 crore. Further, as part of separate function of SLDC, it is maintaining separate accounts for SLDC. It has recovered SLDC charges to the tune of Rs. 5.37 crore in FY 2020-21. The open access charges are to the tune of Rs. 60.30 crore as considered in audited accounts for FY 2020-21 which includes the short term open access charges recovered in FY 2020-21 for approved inter-state and intra-state transactions by NRLDC and UPSLDC respectively and the share of UPPTCL in POC charges for utilization of its assets as interstate transmission system as disbursed by PGCIL during FY 2019-20. Thus, the total revenue receipts of the Petitioner for FY 2020-21 are to the tune of Rs. 2,434.28 crore. Further, there is a true-up adjustment of Rs. 867.93 crore pertaining to FY 2019-20. The net revenue pertaining to FY 2020-21 is provided in the table below:

Table 3.9-1: Revenue from Operations pertaining to FY 2020-21

Particulars	Amount (Rs. Crore)
Transmission Charges for FY 2020-21	3,236.54
Open Access Charges for FY 2020-21	60.30
SLDC Charges for FY 2020-21	5.37
Total Revenue	**3,302.21**
Less:	

Particulars	Amount (Rs. Crore)
True-up Adjustment for FY 2019-20	*867.93*
Total Revenue considered for revenue side truing up in FY 2020-21	**2,434.28**

The detailed customer-wise revenue for FY 2020-21 is provided in ‘**Annexure 9**’. Further, the actual intra-state transmission losses for FY 2020-21 were 3.37%. The computation of the same and approval from SLDC has been provided in ‘**Annexure 7’**.

3.10 Aggregate Revenue Requirement for FY 2020-21 after truing up

The Aggregate Revenue Requirement for FY 2020-21 after final truing up is summarised in the Table below:

Table 3.10-1: ARR for FY 2020-21 after Final Truing Up

(All figures in Rs Crore)

Particulars	As per order dated 10th November 2020	Actual as per Audited Accounts	True-up Petition
O&M Cost	962.01	1098.19	1402.18
Employee cost	*607.29*	*584.72*	*968.81*
A&G expenses	*47.08*	*64.82*	*56.76*
R&M expenses	*307.64*	*448.65*	*376.61*
Interest on Loan Capital	1,187.47	1,386.85	1,395.76
Interest on Working Capital	34.22	0.00	47.49
Finance Charges	-	0.06	-
Depreciation	988.62	1,391.78	1,355.45
Gross Expenditure	**3,172.32**	**3,876.88**	4,200.88
Less: Employee cost capitalized	371.63	240.26	240.26
Less: A&G Capitalisation	0.00		0.00
Less: Interest Capitalisation	298.36	197.47	197.47
Net Expenditure	**2,502.33**	**3,439.15**	3,763.15
Provision for Bad & Doubtful debts	0.00	0.00	-
Prior Period Items, Debits, write-offs & other expenses/Comprehensive Incomes	0.00	136.85	-
Net Expenditure with provisions	**2,502.33**	**3,576.00**	**3,763.15**
Add: Return on Equity	162.17	-	171.01
Less: Non-Tariff Income	75.36	262.48	132.86
Annual Revenue Requirement (ARR)	**2,589.14**	**3,313.53**	**3,801.31**
Revenue from Operations		**3,302.21**	**3,302.24**
Less: True-up Adjustment of FY 2019-20		*867.93*	*867.93*
Revenue Pertaining to FY 2020-21		2,434.28	2,434.28
Net Gap / (Surplus)	**-**	**879.25**	**1,367.02**
Energy Delivered (MUs)	1,08,890.33	1,19,091.98	1,19,091.98
Transmission Tariff (Rs./kWh)	0.2378	0.2782	0.3192

The true-up transmission charges for FY 2020-21 are Rs. 3,801.31 as against Rs. 2,589.14 crore approved in the order dated 10th November 2020. After considering the transmission charges and associated revenue already recovered for FY 2020-21 amounting to Rs. 2,434.28 crore (excluding true-up adjustment of FY 2019-20) there is revenue gap to the tune of Rs. 1,367.02 crore. As per the consistent practice of the Hon'ble Commission adopted in previous tariff orders pertaining to true-up for previous years, the Petitioner seeks the recovery of the un-recovered revenue gap of Rs. 1,367.02 crore upon truing up for FY 2020-21 from the date of order upon the instant petition in the proportion of amount billed to the Distribution Licensees and other beneficiaries in FY 2020-21.

4 Annual Performance Review for FY 2021-22

4.1 Components of the Annual Revenue Requirement

The Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution and Transmission) Regulations, 2019 prescribe that Aggregate Revenue Requirement for the transmission business of the transmission licensee for each year of the control period shall comprise of the following components:

- Operation & Maintenance expenses comprising of:
  - Employee Expenses
  - Repair and Maintenance Expenses
  - Administrative & General Expenses
- Depreciation
- Interest & Financing Costs
  - Interest on Long Term Loans
  - Finance Charges
  - Interest on Working Capital
- Return on Equity
- Taxes on Income
- Contribution to Contingency Reserve
- Non-Tariff Incomes
- Income from Other Business

The Petitioner in the current petition is filing the Annual Performance Review (APR) of the ARR for the FY 2021-22 as per the provisions of the MYT Regulations 2019 and projections of the expenses and capital expenditure as per the revised estimates. The petitioner had filed the ARR and tariff petition for the FY 2021-22 on 30th November 2020 in line with the MYT Regulations 2019 and as per capital investment proposed in the Business Plan petition for the MYT Period from FY 2020-21 to FY 2024-25 submitted on 3rd March 2020 and in the subsequent revised submissions. The Hon'ble Commission vide tariff order dated 29th June November 2021 had approved the ARR for FY 2021-22. The Petitioner is seeking APR for FY 2021-22, the following table summarizes the APR computations for FY 2021-22 for approval by the Hon'ble Commission. The Petitioner also provides the details of APR in the subsequent paragraphs:

Table 4.1-1: Summary of the APR for FY 2021-22

Particulars	**ARR (as per Order dated 29th June 2021)**	**APR Petition**
O&M Cost	1102.83	1464.76
Employee cost	*671.58*	*1,026.93*
A&G expenses	*52.80*	*52.12*

Particulars	**ARR (as per Order dated 29th June 2021)**	**APR Petition**
R&M expenses	*378.45*	*385.71*
Interest on Loan Capital	1,152.50	1,455.16
Interest on Working Capital	45.08	57.26
Depreciation	1,108.62	1,518.80
Gross Expenditure	**3,409.03**	**4,495.97**
Less: Employee cost capitalized	406.64	421.96
Less: A&G Capitalisation	0.00	0.00
Less: Interest Capitalisation	180.94	205.88
Net Expenditure	**2,821.45**	**3,868.13**
Add: Return on Equity	173.44	187.63
Less: Non-Tariff Income	237.68	139.06
Annual Revenue Requirement (ARR)	**2,720.50**	**3,916.70**
Less: Estimated ARR for UPSLDC	-	30.05
ARR for UPPTCL	**2,720.50**	**3,886.65**
Energy Delivered (MUs)	1,12,360.21	1,28,826.60
Transmission Tariff (Rs./kWh)	**0.2421**	**0.3017**

4.2 Escalation Index/Inflation Rate

The MYT Regulations 2019 issued by Hon'ble Commission provides that expenses of the base year shall be escalated at Inflation/Escalation rate notified by Labour Bureau, Govt. of India and Economic Advisor Govt. of India respectively for different years. The inflation rate for Employee Expense shall be the average of Consumer Price index (CPI) for immediately preceding three financial years and the inflation rate for A&G Expense and R & M Expenses shall be the average of the Wholesale Price index (WPI) for immediately preceding three financial years. For the purpose of this MYT (i.e. FY 2020-21 to FY 20124-25), the Petitioner has used the following WPI, CPI and inflation rates as peer the table mentioned below:

Table 4.2-1: Inflation Rate and WPI/CPI as per MYT Regulations 2019

FY	Index		Inflation Rate		60:40 Index	60:40 Index Inflation
	WPI (2011-12)	CPI	WPI (2011-12)	CPI		
FY 18	114.90	284.42	2.96%	3.08%	216.61	3.05%
FY 19	119.80	299.92	4.26%	5.45%	227.87	5.20%
FY 20	121.80	322.00	1.67%	7.36%	241.92	6.17%
FY 21	123.40	338.69	1.31%	5.18%	252.58	4.40%
Avg. of Last 3 years			**2.42%**	**6.00 %**		

4.3 Operation & Maintenance Expenses

Operation & Maintenance expenses comprise of Employee costs, Administrative & General (A&G) Expenses and Repair & Maintenance (R&M) expenses. The Regulation 34 of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, issued by the Hon'ble Commission stipulates:

"34. Operation & Maintenance Expenses

a) The Operation and Maintenance expenses for the Transmission Business shall be computed as stipulated in with these Regulations.
b) The Operation and Maintenance expenses shall be derived on the basis of the average of the Trued-Up values (without efficiency gain / loss) for the last five (5) financial years ending March 31, 2019 subject to prudence check by the Commission. However, if Trued-Up values (without efficiency gain / loss) are not available for FY 2018-19, then last five (5) available Trued-Up values (without efficiency gain / loss) will be considered and subsequently when the same are available the base year value (i.e. FY 2019-20) will be recomputed.
c) The average of such operation and maintenance expenses shall be considered as Operation and Maintenance expenses for the middle year and shall be escalated year on year with the escalation factor considering CPI and WPI of respective years in the ratio of 60:40, for subsequent years up to FY 2019-20.
d) The One-time expenses such as expense due to change in accounting policy, wage arrears paid due to Pay Commissions, etc., and the expenses beyond the control of the Transmission Licensee such as dearness allowance, terminal benefits, etc., in Employee cost, may be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check.
e) *At the time of Truing-up of the O&M expenses, the actual point to point inflation over Wholesale Price Index numbers as per Office of Economic Advisor of Government of India and the actual Consumer Price Index for Industrial workers (all India) as per Labour Bureau, Government of India, in the concerned year shall be considered."*

In line with the above regulations the Petitioner has worked out the base year O&M expenses i.e. for FY 2019-20. The Petitioner has considered the True-up O&M expenses for the FY 2015-16 to FY 2016-17 as allowed by the Hon'ble Commission in the true-up orders. Further, the Petitioner has considered the normative O&M Expenses as per the true-up Petitions for FY 2017-18 to FY 2019-20. The Hon'ble Commission in its order dated 10th November 2020 while truing-up of the O&M expenses for the FY 2017-18 & FY 2018-19 had considered the lower of the normative and actual O&M expenses. In light of the same, the Petitioner has considered the normative O&M Expenses as per the true-up Petitions for FY 2017-18 to FY 2019-20 for arriving at the base year norms. The base year O&M expenses for FY 2019-20 are as mentioned in the true-up section for FY 2020-21.

Based on the O&M expenses for the FY 2019-20 and FY 2020-21 as worked out in the true-up section above the Petitioner has computed the allowable O&M expenses for FY 2021-22 as mentioned in the table below:

Table 4.3-1: O&M Expenses for FY 2021-22 as per the MYT Regulations 2019

(Rs. crore)

Employee Expenses	**FY 2019-20 (Base-Year)**	**FY 2020-21 (True-up Petition)**	**FY 2021-22 (APR)**
CPI Inflation Index (%)	-	5.30%	6.00%
Gross Employee Costs and Provisions	920.06	968.81	1026.93
Less: Employee expenses capitalized	255.21	240.26	421.96
Net Employee Expenses	**664.86**	**728.55**	**604.97**
A&G Expenses	**FY 2019-20 (Base-Year)**	**FY 2020-21**	**FY 2020-21**
WPI Inflation Index (%)	-	2.96%	2.42%
Gross A&G Expenses (i+ii+iii)	**49.36**	**56.76**	**52.12**
i. Normative A&G Expenses		*50.82*	*52.05*
ii. Licensee Fee		*5.88*	-
iii. Finance Charges		*0.06*	*0.07*
Less: A&G Expenses Capitalised	-	-	-
Net A&G Expenses	**49.36**	**56.76**	**52.12**
R & M Expenses	**FY 2019-20 (Base-Year)**	**FY 2020-21**	**FY 2020-21**
WPI Inflation Index (%)	-	2.96%	2.42%
R & M Expenses	**365.77**	**376.61**	**385.71**
Net O&M Expenses	**1079.99**	**1161.92**	**1042.79**

The employee expense capitalisation for the FY 2021-22 is considered at the same rate as per the actual capitalisation in the annual accounts for FY 2020-21.

4.4 Gross Fixed Assets Balances and Capital Formation

The assumptions used for projecting gross fixed asset (GFA) and capital work in progress (CWIP) are as follows:

- The petitioner has estimated the capital investment for FY 2021-22 based on the expected expenditure to be made towards the ongoing projects or schemes and those towards the new projects to be undertaken in the FY 2021-22.
- The capital investment for FY 2021-22 has been estimated as per the table below:

Table 4.4-1: Capital investment for FY 2021-22

(Rs. crore)

Financing	FY 2021-22
Consumer Contribution/Deposit Works	504.34
Debt	2,115.89
Equity	906.81
Total Investment	**3,527.05**

The Petitioner submits that the above capital expenditure as per the business plan has been revised in view of the change in the timelines of the projects. The proposed CAPEX and timeline for the FY 2021-22 is also considering the Governments approval of extension of timelines, across the board, due to COVID-19 impact as well as funding crunch from Government of Uttar Pradesh (GoUP) and directive to take up important projects only due to austerity measures declared by GoUP.

Further, in the absence of the MNRE's approval of the grant, the GEC-II projects could not take in the FY 2020-21. Hence, any expenditure towards the same has not been considered in the APR petition for FY 2021-22.

- Investment through "deposit work" has been taken for capital formation. The total consumer contribution considered towards the capital formation in FY 2021-22 is Rs. 504.34 crore. The same has been considered as per the actual consumer contribution in the previous year. Further, no grant has been considered for the FY 2021-22. Further, the total capital investment planned for the FY 2021-22 is Rs. 3,527.05 crore is towards ongoing and new schemes. This also includes the proposed capital expenditure of Rs. 0.15 crore for UPSLDC in FY 2021-22.
- 25% of the opening CWIP and 25% of investment made during the year, expenses capitalised & interest capitalised (25% of total investment) has been assumed to be capitalised during the year for FY 2021-22, in line with the past practice of the Hon'ble Commission.
- The capital investment plan (net of deposit works) has been projected to be funded in the ratio of 70:30 (debt to equity).

Considering the aforementioned submissions, the projected capital formation and capital work in progress for FY 2021-22 is presented below:

Table 4.4-2: Projections of Capitalisation & WIP of Investment during the FY 2021-22

(All figures in Rs. Crore)

Particulars	Derivation	FY 2021-22
Opening WIP as on 1st April	A	7,958.32
Investments	B	3,527.05
Employee Expenses Capitalisation	C	421.96
A&G Expenses Capitalisation	D	0.00
Interest Capitalisation on Interest on long term loans	E	205.88
Total Investments	**F= A+B+C+D+E**	12,113.21
Transferred to GFA (Total Capitalisation)	G	3,028.30
Closing WIP	**H= F-G**	9,084.90

The Petitioner has considered the actual closing CWIP of the FY 2020-21 as per the annual accounts as opening for the FY 2021-22 , in light of the discussion and submission in the previous sections regarding allowing the CWIP, GFA balance, capital expenditure and capitalisation on actuals upto FY 2019-20 and the disallowance made in the CWIP and the GFA by the Hon'ble Commission for the FY 2017-18 to FY 2019-20 in the tariff order dated 10th November 2020 & 29th June 2021 has not been considered in the current petition. The GFA balance considered for the FY 2021-22 is provided below:

Table 4.4-3: Projections of Gross Fixed Assets for FY 2021-22

(All figures in Rs. Crore)

Particulars	Derivation	FY 2021-22
Opening GFA	A	31879.58
Net Addition to GFA*	B	3028.30
Closing GFA	C=A+B	34907.88

**No deduction or deletion has been considered in the GFA during the FY 2021-22, the same may be considered on actual basis at the time of truing-up.*

Further, in line with the Regulation 20.2 and the methodology considered by the Hon'ble Commission the fixed asset base (in which the retirement or replacement or de-capitalisation of the assets is accounted for) computed as on 31.03.2020 (taking into consideration the true-upto FY 2019-20), the equity capital as on 1.4.2020, has been computed to the extent of 30% of such fixed asset base and the debt capital has been computed to the extent of 70% of such fixed asset base. Accordingly, the Debt and equity as on 1.4.2020 is computed as mentioned in Table 3.3-5 in the true-up section above.

4.5 Financing of the Capital Investment

The Petitioner has considered a normative debt:equity ratio for financing of the capital investment for FY 2020-21. Considering this approach, 70% of the capital expenditure undertaken in any year has been considered to be financed through loan and balance 30% has been considered to be financed through equity contributions. The portion of capital expenditure financed through consumer contribution, capital subsidies and grants has been separated as the depreciation and interest thereon would not be charged to the beneficiaries.

The total consumer contribution considered towards the capital formation in FY 2021-22 is the total value of the deposit works to be undertaken in FY 2021-22.

The table below summarises the amounts considered towards consumer contributions, capital grants and subsidies for FY 2021-22:

Table 4.5-1: Consumer Contribution, Capital Grants & Subsidies considered

(All figures in Rs Crore)

Particulars	FY 2021-22
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	1,922.78
Additions during the year	504.34
Less: Deductions	161.00
Closing Balance	**2,266.13**

Thus, the financing of the capital investment is depicted in the table below:

Table 4.5-2: Financing of the Capital Investment for FY 2021-22

(All figures in Rs Crore)

Particulars	Derivation	2021-22
Investment	A	3,527.05
Less:		
Consumer Contribution	B	504.34
Investment funded by debt and equity	C=A-B	3,022.71
Debt Funded	70%	2,115.89
Equity Funded	30%	906.81

Thus, the Petitioner submits that out of the capital investment of Rs. 3,527.05 crore in FY 2021-22 the capital investment through deposit works has been considered as Rs. 504.34 crore. The balance amount is considered to be funded through debt and equity. The debt equity ratio considered for the FY 2020-21 is 70:30. The Petitioner is planning large capital expenditure in the MYT period towards new and ongoing works of sub-stations and transmission lines, augmentation schemes and power evacuation schemes. Further, the Regulation 32.2 of the MYT Regulations 2019 provides as:

> *"32.2 The Capital Investment Plan shall be a least cost plan for undertaking investments. However, all capital expenditure projects of 220 kV and above and other capital expenditure of value exceeding Rs. Twenty Crore, must have prior approval of the Commission on quarterly basis, and will be subject to prudence check."*

The Petitioner in line with the above regulations is seeking prior approval of the Hon'ble Commission for the new schemes/projects planned or to be undertaken during the period from FY 2020-21 to FY 2024-25. The details of the assets/projects where the Petitioner has approached the Hon'ble Commission for prior approval is provided in the '**Annexure 8'.**

4.6 Depreciation Expense

Regulation 21 of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, provide for the basis of charging depreciation. The relevant excerpt is reproduced below:

*"**21 Depreciation:***

a) The approved original cost of the fixed assets shall be the value base for calculation of Depreciation:
Provided that the Depreciation shall be allowed on the entire capitalised amount of the new assets after reducing the approved original cost of the retired or replaced or de-capitalised assets.

b) Depreciation shall be computed annually based on the Straight- Line Method at the rates stipulated in the Annexure- A of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019.
Provided that the Licensee 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 shall be spread over the balance Useful Life of the asset including the Extended Life, as per submission of the Licensee and approved by the Commission.

c) The salvage value of the asset shall be considered at 10% of the allowable capital cost and Depreciation shall be allowed up to a maximum of 90% of the allowable capital cost of the asset:
Provided that land owned shall not be treated as a Depreciable asset and shall be excluded while computing Depreciation:
Provided further that Depreciation shall be chargeable from the first year of commercial operation.

d) Depreciation shall not be allowed on assets funded by Consumer Contributions or Subsidies/ Grants/ Deposit works.

21.2 In case of existing assets, the balance depreciable value as on April 01, 2020, shall be worked out taking into consideration the life of the asset, and by deducting the cumulative Depreciation as admitted by the Commission up to March 31, 2020, from the gross depreciable value of the assets.

21.3 In case of projected commercial operation of the assets for part of the year, depreciation shall be computed based on the average of opening and closing value of assets.

21.4 Depreciation shall be re-computed for assets capitalised at the time of Truing-Up, based on Audited Accounts and documentary evidence of assets capitalised by the Petitioner, subject to the prudence check of the Commission."

The Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019 provides for calculating depreciation based on the Straight – Line Method basis, whereas the previous MYT Transmission Regulations, 2014 provides for calculation of depreciation on written down value of the fixed assets of the corresponding year. Further, for the allowable depreciation for the assets capitalized upto till 31st March 2020 and those capitalized 1st April 2020 onwards the Hon'ble Commission has observed the following in the order dated 10th November 2020:

"7.5.8 Accordingly, the existing assets are to be dealt with separately as per Regulations 21.2 and their Net block (as on 31.3.2020) may be kept separate and may be considered Gross Block to apply SLM from 1.4.2020 onwards and the new assets to be dealt as per Regulations 21.1 of MYT Regulations 2019.

7.5.9 Further, UPPTCL is directed to maintain a separate individual asset wise FAR for assets capitalized after 1.4.2020 and the Gross Block and Depreciation may be computed separately from the Gross Block before 1.4.2020. Accordingly, from FY 2020-21 onwards UPPTCL to maintain two separate Gross Blocks (one for assets upto 31.3.2020 (Part-A) and second for assets after 1.4.2020 (Part B) and two separate FAR`s depicting addition of assets details from 01.04.2020 onwards for the purpose of depreciation computation for Regulatory Accounts."

Accordingly, the Hon'ble Commission has allowed the depreciation for the gross block upto 31st March 2020 (Part-A) and that capitalized 1st April 2020 onwards (Part-B) separately.

Further, for the purpose of computing the allowable depreciation, the Petitioner has considered normative closing gross fixed asset base for FY 2019-20 and FY 2020-21 and subsequent addition and the yearly capitalizations for the FY 2021-22 as per revised estimates. Further the Petitioner has computed the asset-wise depreciation as per the rates provided in the Annexure A of the MYT Regulations 2019 based on the normative opening and closing gross fixed asset base for FY 2021-22. The Petitioner in line with the above regulations and methodology adopted by the Hon'ble Commission in the order dated 10th November 2020 and 29th June 2021 has computed the allowable depreciation for the Part-A i.e. assets upto 31st March 2020, the computation of the same is already covered in the previous true-up section & Part-B (for FY 2021-22) as mentioned below:

Table 4.6-1: Depreciation Expense for FY 2021-22 for the Gross Block or Assets Capitalised 1st April 2020 onwards (Part-B)

(All figures in Rs Crore)

Particulars	Opening GFA	Additions to GFA	Deductions to GFA	Closing GFA	Depreciation Rate (%)	Allowable Depreciation
Land & Land Rights						

Particulars	Opening GFA	Additions to GFA	Deductions to GFA	Closing GFA	Depreciation Rate (%)	Allowable Depreciation
i) Unclassified	16.73	16.80	0.00	33.53	0.00%	-
ii) Freehold Land	0.00	0.15	0.00	0.15	0.00%	-
Buildings	118.62	128.42	0.00	247.05	3.34%	6.11
Other Civil Works	9.69	10.84	0.00	20.54	3.34%	0.50
Plants & Machinery	1531.44	1517.47	0.00	3048.91	5.28%	120.92
Lines, Cable Network etc.	1832.08	1339.07	0.00	3171.15	5.28%	132.09
Vehicles	0.01	0.40	0.00	0.41	9.50%	0.02
Furniture & Fixtures	1.21	1.03	0.00	2.24	6.33%	0.11
Office Equipments	0.97	1.13	0.00	2.10	6.33%	0.10
Jeep & Motor Car	0.00	0.00	0.00	0.00	9.50%	-
Intangible Assets	4.41	0.50	0.00	4.91	5.28%	0.25
Assets taken over from Licensees pending final Valuation	3.88	12.48	0.00	16.35	5.28%	0.53
Total Depreciable Assets	**3502.32**	**3011.35**	**0.00**	**6513.67**	**5.20%**	**260.63**
Total Non-Depreciable Assets	**16.73**	**16.95**	**0.00**	**33.68**		**0.00**
GRAND TOTAL	**3519.05**	**3028.30**	**0.00**	**6547.36**	**0.05**	**260.63**

The Petitioner has projected the depreciation on assets created out of consumer contributions, capital grants and subsidies for FY 2021-22 in the same ratio as per annual accounts of FY 2020-21. The Petitioner has reduced the equivalent depreciation amounting to Rs. 135.67 crore for FY 2021-22 in respect of depreciation on assets created out of consumer contributions, capital grants and subsidies. Thus, the allowable depreciation for FY 2021-22 has been depicted in the table below:

Table 4.6-2: Gross Allowable Depreciation for FY 2021-22

(All figures in Rs Crore)

Particulars	FY 2021-22
Allowable Depreciation for assets upto 31.03.2020	1393.84
Allowable Depreciation for assets capitalised 01.04.2020 onwards	260.63
Gross Allowable Depreciation	**1654.47**
Less: Equivalent amount of depreciation on assets acquired out of the consumer contribution and GoUP Subsidy	135.67
Net Allowable Depreciation	**1518.80**

The Petitioner further submits that in compliance to the provisions of Appendix ‘C’ to lndAS-I8, FY 2016-17 onwards the Consumer Contribution Reserve has been recognized as revenue as equal annual income over the useful life of the underlying asset/term of the arrangement with consumers. However, the Hon’ble Commission its order dated 8th January 2019 and 27th August 2019 while approving the revised ARR for FY 2018-19 & FY 2019-20 has allowed the net depreciation after deducting the equivalent amount of depreciation on assets acquired out of the consumer contribution. The petitioner has considered the same approach while claiming the net deprecation amount for FY 2021-22. The Income from Consumer Contribution recognized as revenue (or equivalent depreciation amount) in FY 2021-22 has been projected as the percentage of the Non-tariff income (in the same ratio as in the annual accounts of FY 2020-21)."

Thus, the Petitioner requests the Hon'ble Commission to consider the net depreciation amount of Rs. 1518.80 crore for FY 2021-22.

4.7 Interest on Long Term Loans

It is reiterated that the Petitioner has considered a normative tariff approach with a gearing of 70:30. In this approach, 70% of the capital expenditure undertaken in any year has been considered to be financed through loan and balance 30% has been considered to be funded through equity contributions. The Hon'ble Commission in the order dated 10th November 2020 has considered the normative opeing of the loan as mentioned below:

> *"7.6.5 As per the Regulation 23.2, the normative long term loan outstanding as on April 1, 2020, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2020, from the gross normative loan as shown below:"*

Accordingly, the normative opening loan as on 1st April 2020 is worked out as below:

Table 4.7-1: Opening Normative Loan as on 1st April 2020

(All figures in Rs Crore)

Particulars	Derivation	FY 2020-21
Opening Debt	A	18,896.53
Cumulative Net Depreciation upto 31.3.2020	B	7,490.39
Opening Normative Loan	C=A-B	11,406.15

The normative opening loan for FY 2021-22 has been considered as per the closing loan balance of FY 2020-21 considered in the true-up section above. Further, for the purpose of the computation of the normative interest on loan the Petitioner has considered the loan addition as 70% of the actual capitalisation after adjusting the consumer contribution and grants.

The portion of capital expenditure financed through consumer contributions, capital subsidies and grants has been separated as the depreciation and interest thereon has not been charged to the beneficiaries.

Allowable depreciation for the year has been considered as normative loan repayment. The actual weighted average rate of interest of overall long term loan portfolio for FY 2020-21 has been considered for FY 2021-22, as it seems to be fair and equitable. The computation of the Weighted Average Interest Rate on Long-Term Loan portfolio in FY 2020-21 is provided in '**Annexure 4'.** The interest capitalisation has been considered at a rate of 14.15% for FY 2021-22 which is the actual capitalization for FY 2020-21 as per the annual accounts. The computations for interest on long term loan are depicted below:

Table 4.7-2: Allowable Interest on Long Term Loans for FY 2021-22

(All figures in Rs Crore)

Particulars	2021-22
Opening Loan	12,160.99
Loan Additions (70% of Investments)	1,766.77
Less: Repayments (Depreciation allowable for the year)	1,518.80
Closing Loan Balance	12,408.97
Weighted Average Rate of Interest (%)	11.84%
Interest on long term loan	1,455.16
Interest Capitalisation Rate (%)	14.15%
Less: Interest Capitalized	205.88
Net Interest Charged	1,249.28

4.8 Interest on Working Capital

Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, provides for normative interest on working Capital based on the methodology outlined in the Regulations. The interest on working capital has been computed based on the methodology specified in the Regulation 25 as provided below:

"The working capital requirement of the Transmission Licensee shall cover:

iv. Operation and maintenance expenses for one month;

v. Maintenance spares at 40% of the R&M expenses for two months; and

vi. One-and-a-half-month equivalent of the expected revenue from transmission charges at the prevailing Tariff;

minus

(iv) Amount held as security deposits, if any, from Transmission System Users:

Provided further that for the purpose of Truing- Up for any year, the working capital requirement shall be re-computed on the basis of the values of components of working capital approved by the Commission in the Truing- Up;

Rate of interest on working capital shall be simple interest and shall be equal to the SBI MCLR (1 Year) on October 01, 2019 plus 250 basis points:

Provided that for the purpose of Truing- Up for any year, simple interest on working capital shall be allowed at a rate equal to the weighted average SBI MCLR (1 Year) prevailing during the concerned Year plus 250 basis points."

In accordance with the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, the interest on the working capital requirement is considered as the current State Bank Marginal Cost of Funds based Lending Rate (MCLR) i.e. 10.65%. The Petitioner has, in accordance with the above mentioned MYT Regulations 2019, considered the interest on working capital which is shown in the table below:

Table 4.8-1: Interest on Working Capital for FY 2021-22

(All figures in Rs Crore)

Particulars	FY 2021-22
One Month of O&M Expenses	122.06
Maintenance spares @ 40% of R&M expenses for two month	25.71
Receivable equivalent to 45 days average billing of consumers	389.90
Less: Security deposits from consumers	
Total Working Capital Requirement	**537.68**
Interest rate (%)	10.65%
Interest on working capital	**57.26**

4.9 Other Income

Other Income includes only non-tariff income, which comprises interest on loans and advances to employees, income from fixed rate investment deposits and interest on loans and advances to Licensees. Further, the amount of depreciation charged on assets created out of consumer contributions, capital grants and subsidies is also booked under the other incomes in the annual accounts. The non-tariff income for FY 2021-22 is claimed as Rs. 139.06 crore. The same has been projected after deducting the estimated amount of income from Consumer Contribution from the total non-tariff income for the year. The non-tariff income for FY 2020-21 has been projected based on the actual non-tariff income of FY 2020-21 as per the audited accounts which includes one-time income received towards the repayment of loan principal from GoUP. However, at the time of truing-up for FY 2021-22 the overall non-tariff income shall be considered on actual basis for the purpose of computation of the allowable ARR.

4.10 Reasonable Return/ Return on Equity

Under provisions of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, the Petitioner is eligible to a return of @ 14.5% on equity base; for equity base calculation debt equity ratio shall be 70:30. Where equity involved is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30%. Equity amounting to more than 30% shall be considered as loan. In case of actual equity employed being less than 30%, actual debt and equity shall be considered for determination of tariff. In this

Petition, the return on equity has been computed as per methodology adopted by Hon'ble Commission in the previous Tariff Orders.

In view of the huge gap in the recovery of cost of supply at the Discoms' level, Petitioner is of the view that return on equity would only result in increase in arrears and accumulation of receivables. As such, the Petitioner has been claiming the return on equity @ 2% since the financial year 2009-10 onwards. Return on equity has been computed on the normative equity portion (30%) of capitalised assets.

The Petitioner has computed the eligible return on equity by considering the opening normative equity as on 1st April 2020 as discussed above. Subsequently, it has considered the normative equity closing based on the capital additions for the FY 2021-22 depicted in aforementioned sections.

Thus, the claimed return on equity for FY 2021-22 has been computed to be Rs. 187.63 crore for FY 2021-22 as depicted in the table below:

Table 4.10-1: Allowable Return on Equity for FY 2021-22

(All figures in Rs Crore)

Particulars	Derivation	FY 2021-22
Equity at the beginning of the year	A	9,002.93
Assets Capitalised	B	3,028.30
Addition to Equity	C = 30% of B	757.19
Closing Equity	D = A + C	9,760.11
Average Equity	E = Average of A & D	9,381.52
Rate of Return (%)	F	2.00%
Return on Equity	**G = E x F**	**187.63**

4.11 Summary of APR for FY 2021-22

The APR petition for FY 2021-22 is summarized in the table below:

Table 4.11-1: Summary of APR of FY 2021-22

(All figures in Rs. Crore)

Particulars	**ARR (as per Order dated 29th June 2021)**	**APR Petition**
O&M Cost	1102.83	1464.76
Employee cost	*671.58*	*1,026.93*
A&G expenses	*52.80*	*52.12*
R&M expenses	*378.45*	*385.71*
Interest on Loan Capital	1,152.50	1,455.16
Interest on Working Capital	45.08	57.26
Depreciation	1,108.62	1,518.80
Gross Expenditure	**3,409.03**	**4,495.97**
Less: Employee cost capitalized	406.64	421.96
Less: A&G Capitalisation	0.00	0.00
Less: Interest Capitalisation	180.94	205.88
Net Expenditure	**2,821.45**	**3,868.13**
Add: Return on Equity	173.44	187.63
Less: Non-Tariff Income	237.68	139.06
Annual Revenue Requirement (ARR)	**2,720.50**	**3,916.70**
Less: Estimated ARR for UPSLDC		30.05
ARR for UPPTCL		**3,886.65**
Energy Delivered (MUs)	**1,12,360.21**	**1,28,826.60**
Transmission Tariff (Rs./kWh)	**0.2421**	**0.3017**

The Petitioner requests the Hon'ble Commission to consider the above ARR as per the APR petition for the FY 2021-22. Further, the Petitioner shall approach the Hon'ble Commission for allowing the gap/surplus at the time of truing up of FY 2021-22 based on the annual accounts.

5 Aggregate Revenue Requirement for FY 2022-23

5.1 Components of the Annual Revenue Requirement

The Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution and Transmission) Regulations, 2019 prescribe that Aggregate Revenue Requirement for the transmission business of the transmission licensee for each year of the control period shall comprise of the following components:

- Operation & Maintenance expenses comprising of:
  - Employee Expenses
  - Repair and Maintenance Expenses
  - Administrative & General Expenses
- Depreciation
- Interest & Financing Costs
  - Interest on Long Term Loans
  - Finance Charges
  - Interest on Working Capital
- Return on Equity
- Taxes on Income
- Contribution to Contingency Reserve
- Non-Tariff Incomes
- Income from Other Business

The Petitioner in the current petition is filing the Aggregate Revenue Requirement (ARR) and tariff for the FY 2022-23 as per the provisions of the MYT Regulations 2019 and projections of the expenses and capital expenditure as per the revised estimates. The petitioner had filed the ARR and tariff petition for the FY 2021-22 on 30th November 2020 in line with the MYT Regulations 2019 and as per capital investment proposed in the Business Plan petition for the MYT Period from FY 2020-21 to FY 2024-25 submitted on 3rd March 2020 and in the subsequent revised submissions. The Hon'ble Commission vide tariff order dated 29th June 2021 had approved the ARR for FY 2021-22. The Petitioner is seeking ARR and tariff for the FY 2022-23, the following table summarizes the ARR claimed for FY 2022-23 for approval by the Hon'ble Commission. The Petitioner also provides the details of ARR & tariff in the subsequent paragraphs:

Table 5.1-1: Summary of the ARR for FY 2022-23

Particulars	ARR Petition
O&M Cost	1,536.94
Employee cost	*1,088.53*
A&G expenses	*53.38*
R&M expenses	*395.03*
Interest on Loan Capital	1,489.55

Particulars	ARR Petition
Interest on Working Capital	58.49
Depreciation	1,687.17
Gross Expenditure	**4,772.14**
Less: Employee cost capitalized	447.27
Less: A&G Capitalisation	0.00
Less: Interest Capitalisation	210.74
Net Expenditure	**4,114.13**
Provision for Bad & Doubtful debts	-
Prior Period Items, Debits, write-offs & other expenses/Comprehensive Incomes	-
Net Expenditure with provisions	**4,114.13**
Add: Return on Equity	203.86
Less: Non-Tariff Income	145.55
Annual Revenue Requirement (ARR)	**4,172.43**
Less: Estimated ARR for UPSLDC	**33.39**
ARR for UPPTCL	**4,139.04**
Energy Delivered (MUs)	**1,30,426.87**
Transmission Tariff (Rs./kWh)	**0.3173**

5.2 Escalation Index/Inflation Rate

The MYT Regulations 2019 issued by Hon'ble Commission provides that expenses of the base year shall be escalated at Inflation/Escalation rate notified by Labour Bureau, Govt. of India and Economic Advisor Govt. of India respectively for different years. The inflation rate for Employee Expense shall be the average of Consumer Price index (CPI) for immediately preceding three financial years and the inflation rate for A&G Expense and R & M Expenses shall be the average of the Wholesale Price index (WPI) for immediately preceding three financial years. For the purpose of this MYT (i.e. FY 2020-21 to FY 20124-25), the Petitioner has used the following WPI, CPI and inflation rates for the FY 2022-23 as per the table mentioned below:

Table 5.2-1: Inflation Rate and WPI/CPI as per MYT Regulations 2019

FY	Index		Inflation Rate		60:40 Index	60:40 Index Inflation
	WPI (2011-12)	CPI	WPI (2011-12)	CPI		
FY 18	114.90	284.42	2.96%	3.08%	216.61	3.05%
FY 19	119.80	299.92	4.26%	5.45%	227.87	5.20%
FY 20	121.80	322.00	1.67%	7.36%	241.92	6.17%
FY 21	123.40	338.69	1.31%	5.18%	252.58	4.40%
Avg. of Last 3 years			**2.42%**	**6.00%**		

5.3 Operation & Maintenance Expenses

Operation & Maintenance expenses comprise of Employee costs, Administrative & General (A&G) Expenses and Repair & Maintenance (R&M) expenses. The Regulation 34 of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, issued by the Hon'ble Commission stipulates:

"34. Operation & Maintenance Expenses

f) The Operation and Maintenance expenses for the Transmission Business shall be computed as stipulated in with these Regulations.

g) The Operation and Maintenance expenses shall be derived on the basis of the average of the Trued-Up values (without efficiency gain / loss) for the last five (5) financial years ending March 31, 2019 subject to prudence check by the Commission. However, if Trued-Up values (without efficiency gain / loss) are not available for FY 2018-19, then last five (5) available Trued-Up values (without efficiency gain / loss) will be considered and subsequently when the same are available the base year value (i.e. FY 2019-20) will be recomputed.

h) The average of such operation and maintenance expenses shall be considered as Operation and Maintenance expenses for the middle year and shall be escalated year on year with the escalation factor considering CPI and WPI of respective years in the ratio of 60:40, for subsequent years up to FY 2019-20.

i) The One-time expenses such as expense due to change in accounting policy, wage arrears paid due to Pay Commissions, etc., and the expenses beyond the control of the Transmission Licensee such as dearness allowance, terminal benefits, etc., in Employee cost, may be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check.

j) *At the time of Truing-up of the O&M expenses, the actual point to point inflation over Wholesale Price Index numbers as per Office of Economic Advisor of Government of India and the actual Consumer Price Index for Industrial workers (all India) as per Labour Bureau, Government of India, in the concerned year shall be considered."*

In line with the above regulations the Petitioner has worked out the base year O&M expenses i.e. for FY 2019-20. The Petitioner has considered the True-up O&M expenses for the FY 2015-16 to FY 2016-17 as allowed by the Hon'ble Commission in the true-up orders. Further, the Petitioner has considered the normative O&M Expenses as per the true-up Petitions for FY 2017-18 to FY 2019-20. The Hon'ble Commission in its order dated 10th November 2020 while truing-up of the O&M expenses for the FY 2017-18 & FY 2018-19 had considered the lower of the normative and actual O&M expenses. However, in light of the discussion and submission in the true-up section regarding allowing the normative O&M expenses upto FY 2019-20, the Petitioner has considered the normative O&M Expenses as per the true-up Petitions for FY 2017-18 to FY 2019-20 for arriving at the base year norms. The base year O&M expenses for FY 2019-20 are as mentioned below:

Table 5.3-1: Base year O&M Expenses as per the MYT Regulations 2019

(Rs. crore)

Particulars	True-up Expenses (Rs. crore)					Avg. Expenses for Mid-year	Normative Expenses Considered (upto base year)	
	FY 2015-16	FY 2016-17	FY 2017-18*	FY 2018-19*	FY 2019-20*	FY 2017-18	FY 2018-19	FY 2019-20
Employee Expenses	473.99	513.86	848.56	1054.67	1227.95	823.80	866.63	920.06
A&G Expenses	28.35	62.51	38.14	37.81	54.16	44.20	46.49	49.36
R & M Expenses	167.81	205.35	344.94	423.70	495.72	327.50	344.53	365.77
WPI & CPI Combined Inflation Rate Considered (%)							*5.20%*	*6.17%*

**Normative Expenses as per the True-up Petitions*

Based on the O&M expenses for the FY 2019-20 and allowable O&M expenses for the FY 2021-22 as worked out in the earlier APR section the Petitioner has computed the allowable O&M expenses for FY 2022-23 as mentioned in the table below:

Table 5.3-2: O&M Expenses for FY 2022-23 as per the MYT Regulations 2019

(Rs. crore)

Employee Expenses	**FY 2019-20 (Base-Year)**	**FY 2020-21 (True-up Petition)**	**FY 2021-22 (APR)**	**FY 2022-23 (ARR)**
CPI Inflation Index (%)	-	5.30%	6.00%	6.00%
Gross Employee Costs and Provisions	920.06	968.81	1026.93	1088.53
Less: Employee expenses capitalized	255.21	240.26	421.96	447.27
Net Employee Expenses	**664.86**	**728.55**	**604.97**	**641.26**
A&G Expenses	**FY 2019-20 (Base-Year)**	**FY 2020-21**	**FY 2020-21**	**FY 2020-21**
WPI Inflation Index (%)	-	2.96%	2.42%	2.42%
Gross A&G Expenses (i+ii+iii)	**49.36**	**56.76**	**52.12**	**53.38**
i. Normative A&G Expenses		*50.82*	*52.05*	*53.31*
ii. Licensee Fee	-	*5.88*	-	-
iii. Finance Charges		*0.06*	*0.07*	*0.07*
Less: A&G Expenses Capitalised	-	-	-	-
Net A&G Expenses	**49.36**	**56.76**	**52.12**	**53.38**
R & M Expenses	**FY 2019-20 (Base-Year)**	**FY 2020-21**	**FY 2020-21**	**FY 2020-21**
WPI Inflation Index (%)	-	2.96%	2.42%	2.42%
R & M Expenses	**365.77**	**376.61**	**385.71**	**395.03**
Net O&M Expenses	**1079.99**	**1161.92**	**1042.79**	**1089.67**

The employee expense capitalisation for the FY 2022-23 is considered at the same rate as per the actual capitalisation in the audited accounts for FY 2020-21.

5.4 Gross Fixed Assets Balances and Capital Formation

The assumptions used for projecting gross fixed asset (GFA) and capital work in progress (CWIP) are as follows:

- The petitioner has estimated the capital investment for FY 2022-23 based on the expected expenditure to be made towards the ongoing projects or schemes and those towards the new projects to be undertaken in the FY 2022-23.
- The capital investment for FY 2022-23 has been estimated as per the table below:

Table 5.4-1: Capital investment for FY 2022-23

(Rs. crore)

Financing	As per the Business Plan Petition for FY 2022-23	As per the ARR Petition for FY 2022-23
Grant towards the Green Energy Corridor (@ 33%)	633.60*	349.97
Consumer Contribution/Deposit Works	94.00	504.34
Debt	4,058.18	3,053.81
Equity	1,739.22	1,308.78
Total Investment	**6,525.00**	**5,216.90**

**Grant @ 40%*

The Petitioner submits that the above proposed capital expenditure has been revised in view of the change in the timelines of the projects. The proposed CAPEX and timeline for the FY 2022-23 is also considering the Governments approval of extension of timelines, across the board, due to COVID-19 impact as well as funding crunch from Government of Uttar Pradesh (GoUP) and to take up important projects only due to austerity measures. Further, regarding GEC-II, it is to mention that the initially the evacuation system for the 4000 MW solar plants was planned in 4 phases (1000 MW to be added every year from FY 2019-20 to FY 2022-23). However, considering that Out of the planned 4000 MW approximately 3400 MW has been approved and are expected to be commissioned by December 2023, CCEA approval, for the GEC-II scheme, on 6th January 2022 and subsequent approval of GoUP on 7th January 2022. Accordingly, UPPTCL has provisionally revised the implementation of the GEC-II scheme in two (2) phases and the same has been communicated to MNRE. Further, UPPTCL shall approach the Hon'ble Commission seeking the capital cost approval of the individual projects planned GEC-II scheme. The year-wise CAPEX planned towards the GEC-II scheme is as follows:

Table 5.4-2: CAPEX planned towards the GEC-II Scheme

(Amount in Rs. crore)

Financing	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total
GEC II CAPEX planned as per the Business Plan Petition	335.00	1,476.00	1,584.00	1,007.00	610.00	**5,011.00**
Revised GEC II CAPEX (Provisional)*	-	-	1,060.52	3,158.68	605.10	**4,824.30**

**The above capital expenditure may vary depending upon the finalisation and approval of the individual projects*

The expenditure towards the GEC-II scheme has been considered to the tune of Rs. 1,060.52 crore in FY 2022-23. The details of the same has been provided in the **Annexure 13**. The total no. of sub-stations and transmission lines planned under GEC-II are as follows:

Table 5.4-3: No. of Sub-stations & Transmission Lines Planned for the GEC-II

As per the Business Plan Petition										
Voltage Level (kV)	No. of Sub-stations					Transmission Lines (Ckm)				
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total
765	8	-	2	-	10	192	-	71	-	263
400	7	4	2	-	13	334	273	122	-	729
220	1	1	-	-	2	25	335	-	-	360
132	-	1	1	-	2	-	185	215	-	400
Total	16	6	5	-	27	551	793	408	-	1752
Revised as per the Current Petition (Provisional)										
Voltage Level (kV)	No. of Sub-stations					Transmission Lines (Ckm)				
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total
765	-	-	2	-	2	-	-	400	-	400
400	-	-	2	-	2	-	-	720	-	720
220	-	2	7	3	12	-	22	988	57	1067
132	-	-	4	4	8	-	-	122	202	324
Total	-	2	15	7	24	-	22	2230	259	2511

- Investment through "deposit work" has been taken for capital formation. The total consumer contribution considered towards the capital formation in FY 2022-23 is Rs. 504.84 crore. The same has been considered as the actual consumer contribution in the FY 2020-21. Further, grant @33% has been considered towards the expenditure for the assets under the Green Energy Corridor (GEC-II) during the FY 2022-23. Further, the total capital investment planned for the FY 2022-23 is Rs. 5,216.90 crore is towards ongoing and new schemes. This also includes the proposed capital expenditure of Rs. 0.17 crore for UPSLDC in FY 2022-23.
- 25% of the opening CWIP and 25% of investment made during the year, expenses capitalised & interest capitalised (25% of total investment) has been assumed to be capitalised during the year for FY 2022-23, in line with the past practice of the Hon'ble Commission.
- The capital investment plan (net of deposit works) has been projected to be funded in the ratio of 70:30 (debt to equity).

Considering the aforementioned submissions, the projected capital formation and capital work in progress for FY 2022-23 is presented below:

Table 5.4-4: Projections of Capitalisation & WIP of Investment during the FY 2022-23

(All figures in Rs. Crore)

Particulars	Derivation	FY 2022-23
Opening WIP as on 1st April	A	9,084.90
Investments	B	**5,216.90**
Employee Expenses Capitalisation	C	447.27
A&G Expenses Capitalisation	D	0.00
Interest Capitalisation on Interest on long term loans	E	210.74
Total Investments	**F= A+B+C+D+E**	**14,959.82**
Transferred to GFA (Total Capitalisation)	G	3,739.95
Closing WIP	**H= F-G**	**11,219.86**

The Petitioner has considered the actual closing CWIP of the FY 2019-20 as per the annual accounts as opening for the FY 2020-21 and subsequent closing for FY 2021-22 as determined in the APR section above. The disallowance made in the CWIP and the GFA by the Hon'ble Commission for the FY 2017-18 to FY 2019-20 in the tariff order dated 10th November 2020 and 29th June 2021 has not been considered in the current petition. The GFA balance considered for the FY 2022-23 is provided below:

Table 5.4-5: Projections of Gross Fixed Assets for FY 2022-23

(All figures in Rs. Crore)

Particulars	Derivation	FY 2022-23
Opening GFA	A	34907.88
Net Addition to GFA*	B	3739.95
Closing GFA	C=A+B	38647.84

**No deduction or deletion has been considered in the GFA during the FY 2022-23, the same may be considered on actual basis at the time of truing-up.*

Further, in line with the Regulation 20.2 and the methodology considered by the Hon'ble Commission the fixed asset base (in which the retirement or replacement or de-capitalisation of the assets is accounted for) computed as on 31.03.2020 (taking into consideration the true-upto FY 2019-20), the equity capital as on 1.4.2020, has been computed to the extent of 30% of such fixed asset base and the debt capital has been computed to the extent of 70% of such fixed asset base. Accordingly, the Debt and equity as on 1.4.2020, computed for FY 2021-22 as discussed in the APR section above. Further, the addition for the loan and equity for the FY 2022-23 has been considered in the ratio 70:30 of the total capitalisation amount after adjusting the consumer contribution and grant.

5.5 Financing of the Capital Investment

The Petitioner has considered a normative debt:equity ratio for financing of the capital investment for FY 2021-22. Considering this approach, 70% of the capital expenditure undertaken in any year has been considered to be financed through loan and balance 30% has been considered to be financed through equity contributions. The portion of capital expenditure financed through consumer contribution, capital subsidies and grants has been separated as the depreciation and interest thereon would not be charged to the beneficiaries.

The table below summarises the amounts considered towards consumer contributions, capital grants and subsidies for FY 2021-23:

Table 5.5-1: Consumer Contribution, Capital Grants & Subsidies considered

(All figures in Rs Crore)

Particulars	FY 2022-23
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	2,266.13
Additions during the year	**854.31**
Less: Deductions	189.75
Closing Balance	**2,930.69**

Thus, the financing of the capital investment is depicted in the table below:

Table 5.5-2: Financing of the Capital Investment for FY 2022-23

(All figures in Rs Crore)

Particulars	Derivation	2022-23
Investment	A	5,216.90
Less:		
Consumer Contribution	B	854.31
Investment funded by debt and equity	C=A-B	4,362.59
Debt Funded	70%	3,053.81
Equity Funded	30%	1,308.78

Thus, the Petitioner submits that out of the capital investment of Rs. 5,216.90 crore in FY 2022-23 the capital investment through deposit works has been considered as Rs. 504.34 crore and grant of Rs. 349.97 crore. The balance amount is considered to be funded through debt and equity. The debt equity ratio considered for the FY 2022-23 is 70:30. The Petitioner is planning large capital expenditure in the MYT period towards new and ongoing works of sub-stations and transmission lines, augmentation schemes and power evacuation schemes. Further, the Regulation 32.2 of the MYT Regulations 2019 provides as:

> *"32.2 The Capital Investment Plan shall be a least cost plan for undertaking investments. However, all capital expenditure projects of 220 kV and above and other capital expenditure of value exceeding Rs. Twenty Crore, must have prior approval of the Commission on quarterly basis, and will be subject to prudence check."*

The Petitioner in line with the above regulations is seeking prior approval of the Hon'ble Commission for the new schemes/projects planned or to be undertaken during the period from FY 2020-21 to FY 2024-25. The details of the assets/projects where the Petitioner has approached the Hon'ble Commission for prior approval is provided in the letter attached as '**Annexure 8'.**

5.6 Depreciation Expense

Regulation 21 of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, provide for the basis of charging depreciation. The relevant excerpt is reproduced below:

*"**21 Depreciation:***

e) The approved original cost of the fixed assets shall be the value base for calculation of Depreciation:
Provided that the Depreciation shall be allowed on the entire capitalised amount of the new assets after reducing the approved original cost of the retired or replaced or de-capitalised assets.

f) Depreciation shall be computed annually based on the Straight- Line Method at the rates stipulated in the Annexure- A of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019.
Provided that the Licensee 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 shall be spread over the balance Useful Life of the asset including the Extended Life, as per submission of the Licensee and approved by the Commission.

g) The salvage value of the asset shall be considered at 10% of the allowable capital cost and Depreciation shall be allowed up to a maximum of 90% of the allowable capital cost of the asset:
Provided that land owned shall not be treated as a Depreciable asset and shall be excluded while computing Depreciation:
Provided further that Depreciation shall be chargeable from the first year of commercial operation.

h) Depreciation shall not be allowed on assets funded by Consumer Contributions or Subsidies/ Grants/ Deposit works.

21.2 In case of existing assets, the balance depreciable value as on April 01, 2020, shall be worked out taking into consideration the life of the asset, and by deducting the cumulative

Depreciation as admitted by the Commission up to March 31, 2020, from the gross depreciable value of the assets.

21.3 In case of projected commercial operation of the assets for part of the year, depreciation shall be computed based on the average of opening and closing value of assets.

21.4 Depreciation shall be re-computed for assets capitalised at the time of Truing-Up, based on Audited Accounts and documentary evidence of assets capitalised by the Petitioner, subject to the prudence check of the Commission."

The Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019 provides for calculating depreciation based on the Straight – Line Method basis, whereas the previous MYT Transmission Regulations, 2014 provides for calculation of depreciation on written down value of the fixed assets of the corresponding year. Further, for the allowable depreciation for the assets capitalized upto till 31st March 2020 and those capitalized 1st April 2020 onwards the Hon'ble Commission has observed the following in the order dated 10th November 2020:

> *"7.5.8 Accordingly, the existing assets are to be dealt with separately as per Regulations 21.2 and their Net block (as on 31.3.2020) may be kept separate and may be considered Gross Block to apply SLM from 1.4.2020 onwards and the new assets to be dealt as per Regulations 21.1 of MYT Regulations 2019.*
>
> *7.5.9 Further, UPPTCL is directed to maintain a separate individual asset wise FAR for assets capitalized after 1.4.2020 and the Gross Block and Depreciation may be computed separately from the Gross Block before 1.4.2020. Accordingly, from FY 2020-21 onwards UPPTCL to maintain two separate Gross Blocks (one for assets upto 31.3.2020 (Part-A) and second for assets after 1.4.2020 (Part B) and two separate FAR`s depicting addition of assets details from 01.04.2020 onwards for the purpose of depreciation computation for Regulatory Accounts."*

Accordingly, the Hon'ble Commission has allowed the depreciation for the gross block upto 31st March 2020 (Part-A) and that capitalized 1st April 2020 onwards (Part-B) separately.

Further, for the purpose of computing the allowable depreciation, the Petitioner has considered normative closing gross fixed asset base for FY 2019-20 and subsequent addition and the yearly capitalizations for the FY 2020-21 to FY 2022-23 as per revised estimates. Further the Petitioner has computed the asset-wise depreciation as per the rates provided in the Annexure A of the MYT Regulations 2019 based on the normative opening and closing gross fixed asset base for FY 2022-23. The Petitioner in line with the above regulations and methodology adopted by the Hon'ble Commission in the order dated 10th November 2020 and 29th June 2021 has computed the allowable depreciation for the Part-A (assets capitalized upto 31st March 2020, as mentioned in the true-up section above) & Part-B (for assets capitalized 1st April 2020 onwards) as mentioned below:

Table 5.6-1: Depreciation Expense for FY 2022-23 for the Gross Block or Assets Capitalised 1st April 2020 onwards (Part-B)

(All figures in Rs Crore)

Particulars	Opening GFA	Additions to GFA	Deductions to GFA	Closing GFA	Depreciation Rate (%)	Allowable Depreciation
Land & Land Rights						
i) Unclassified	33.53	20.75	0.00	54.29	0.00%	-
ii) Freehold Land	0.15	0.18	0.00	0.33	0.00%	-
Buildings	247.05	158.60	0.00	405.65	3.34%	10.90
Other Civil Works	20.54	13.39	0.00	33.93	3.34%	0.91
Plants & Machinery	3048.91	1874.08	0.00	4922.99	5.28%	210.46
Lines, Cable Network etc.	3171.15	1653.75	0.00	4824.90	5.28%	211.10
Vehicles	0.41	0.49	0.00	0.91	9.50%	0.06
Furniture & Fixtures	2.24	1.28	0.00	3.52	6.33%	0.18
Office Equipments	2.10	1.40	0.00	3.50	6.33%	0.18
Jeep & Motor Car	0.00	0.00	0.00	0.00	9.50%	-
Intangible Assets	4.91	0.62	0.00	5.54	5.28%	0.28
Assets taken over from Licensees pending final Valuation	16.35	15.41	0.00	31.77	5.28%	1.27
Total Depreciable Assets	**6513.67**	**3719.02**	**0.00**	**10232.69**	**5.20%**	**435.33**
Total Non-Depreciable Assets	**33.68**	**20.93**	**0.00**	**54.62**		**0.00**
GRAND TOTAL	**6547.36**	**3739.95**	**0.00**	**10287.31**	**0.05**	**435.33**

The Petitioner has projected the depreciation on assets created out of consumer contributions, capital grants and subsidies for FY 2020-21 in the same ratio as per annual accounts of FY 2020-21. The Petitioner has reduced the equivalent depreciation amounting to Rs. 142.01 crore for FY 2022-23 in respect of depreciation on assets created out of consumer contributions, capital grants and subsidies. Thus, the allowable depreciation for FY 2022-23 has been depicted in the table below:

Table 5.6-2: Gross Allowable Depreciation for FY 2022-23

(All figures in Rs Crore)

Particulars	FY 2022-23
Allowable Depreciation for assets upto 31.03.2020	**1393.84**
Allowable Depreciation for assets capitalised 01.04.2020	435.33
Gross Allowable Depreciation	**1829.18**

Particulars	FY 2022-23
Less: Equivalent amount of depreciation on assets acquired out of the consumer contribution and GoUP Subsidy	**142.01**
Net Allowable Depreciation	**1687.17**

The Petitioner further submits that in compliance to the provisions of Appendix 'C' to lndAS-I8, FY 2016-17 onwards the Consumer Contribution Reserve has been recognized as revenue as equal annual income over the useful life of the underlying asset/term of the arrangement with consumers. However, the Hon'ble Commission its order dated 8th January 2019 and 27th August 2019 while approving the revised ARR for FY 2018-19 & FY 2019-20 has allowed the net depreciation after deducting the equivalent amount of depreciation on assets acquired out of the consumer contribution. The petitioner has considered the same approach while claiming the net deprecation amount for FY 2022-23. The Income from Consumer Contribution recognized as revenue (or equivalent depreciation amount) in FY 2022-23 has been projected as the percentage of the Non-tariff income (in the same ratio as in the annual accounts of FY 2019-20)."

Thus, the Petitioner requests the Hon'ble Commission to consider the net depreciation amount of Rs. 1687.17 crore for FY 2022-23.

5.7 Interest on Long Term Loans

It is reiterated that the Petitioner has considered a normative tariff approach with a gearing of 70:30. In this approach, 70% of the capital expenditure undertaken in any year has been considered to be financed through loan and balance 30% has been considered to be funded through equity contributions. The Hon'ble Commission in the order dated 10th November 2020 has considered the normative opening of the loan as mentioned below:

> *"7.6.5 As per the Regulation 23.2, the normative long term loan outstanding as on April 1, 2020, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2020, from the gross normative loan as shown below:"*

Accordingly, the normative opening loan as on 1st April 2020 is worked out as below:

Table 5.7-1: Opening Normative Loan as on 1st April 2020

(All figures in Rs Crore)

Particulars	Derivation	FY 2020-21
Opening Debt	A	18,896.53
Cumulative Net Depreciation upto 31.3.2020	B	7,490.39
Opening Normative Loan	C=A-B	11,406.15

The normative opening loan for the FY 2022-23 is considered as per the normative closing for the FY 2021-22 worked out in the APR section above. Further, for the purpose of the computation of the normative interest on loan the Petitioner has considered the loan addition as 70% of the actual capitalisation after adjusting the consumer contribution and grants.

The portion of capital expenditure financed through consumer contributions, capital subsidies and grants has been separated as the depreciation and interest thereon has not been charged to the beneficiaries.

Allowable depreciation for the year has been considered as normative loan repayment. The weighted average rate of interest of overall long term loan portfolio for FY 2020-21 has been considered for FY 2022-23, as it seems to be fair and equitable. The computation of the Weighted Average Interest Rate on Long-Term Loan portfolio in FY 2020-21 is provided in '**Annexure 4'.** The interest capitalisation has been considered at a rate of 14.15% for FY 2022-23 which is the actual capitalization for FY 2020-21 as per the audited annual accounts. The computations for interest on long term loan are depicted below:

Table 5.7-2: Allowable Interest on Long Term Loans for FY 2022-23

(All figures in Rs Crore)

Particulars	2022-23
Opening Loan	12,408.97
Loan Additions (70% of Investments)	2,019.95
Less: Repayments (Depreciation allowable for the year)	1,687.17
Closing Loan Balance	12,741.75
Weighted Average Rate of Interest (%)	11.84%
Interest on long term loan	**1,489.55**
Interest Capitalisation Rate (%)	14.15%
Less: Interest Capitalized	210.74
Net Interest Charged	**1,278.81**

5.8 Interest on Working Capital

Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, provides for normative interest on working Capital based on the methodology outlined in the Regulations. The interest on working capital has been computed based on the methodology specified in the Regulation 25 as provided below:

"The working capital requirement of the Transmission Licensee shall cover:

vii. *Operation and maintenance expenses for one month;*

viii. *Maintenance spares at 40% of the R&M expenses for two months; and*

ix. *One-and-a-half-month equivalent of the expected revenue from transmission charges at the prevailing Tariff;*

minus

(iv) Amount held as security deposits, if any, from Transmission System Users:

Provided further that for the purpose of Truing- Up for any year, the working capital requirement shall be re-computed on the basis of the values of components of working capital approved by the Commission in the Truing- Up;

Rate of interest on working capital shall be simple interest and shall be equal to the SBI MCLR (1 Year) on October 01, 2019 plus 250 basis points:

Provided that for the purpose of Truing- Up for any year, simple interest on working capital shall be allowed at a rate equal to the weighted average SBI MCLR (1 Year) prevailing during the concerned Year plus 250 basis points."

In accordance with the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, the interest on the working capital requirement is considered as the current State Bank Marginal Cost of Funds based Lending Rate (MCLR) i.e. 10.65%. The Petitioner has, in accordance with the above mentioned MYT Regulations 2019, considered the interest on working capital which is shown in the table below:

Table 5.8-1: Interest on Working Capital for FY 2021-23

(All figures in Rs Crore)

Particulars	FY 2022-23
One Month of O&M Expenses	128.08
Maintenance spares @ 40% of R&M expenses for two month	26.34
Receivable equivalent to 45 days average billing of consumers	394.74
Less: Security deposits from consumers	
Total Working Capital Requirement	**549.16**
Interest rate (%)	10.65%
Interest on working capital	**58.49**

5.9 Other Income

Other Income includes only non-tariff income, which comprises interest on loans and advances to employees, income from fixed rate investment deposits and interest on loans and advances to Licensees. Further, the amount of depreciation charged on assets created out of consumer contributions, capital grants and subsidies is also booked under the other incomes in the annual accounts. The non-tariff income for FY 2022-23 is claimed as Rs. 145.55 crore. The same has been projected after deducting the estimated amount of income from Consumer Contribution from the total non-tariff income for the year. The non-tariff income for FY 2022-23 has been projected based on the actual non-tariff income of FY 2020-21 as per the audited accounts which includes one-time income received towards the repayment of loan principal from GoUP. However, at the time of truing-up for FY 2022-23 the overall non-tariff income shall be considered on actual basis for the purpose of computation of the allowable ARR.

5.10 Reasonable Return/ Return on Equity

Under provisions of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, the Petitioner is eligible to a return of @ 14.5% on equity base; for equity base calculation debt equity ratio shall be 70:30. Where equity involved is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30%. Equity amounting to more than 30% shall be considered as loan. In case of actual equity employed being less than 30%, actual debt and equity shall be considered for determination of tariff. In this Petition, the return on equity has been computed as per methodology adopted by Hon'ble Commission in the previous Tariff Order.

In view of the huge gap in the recovery of cost of supply at the Discoms' level, Petitioner is of the view that return on equity would only result in increase in arrears and accumulation of receivables. As such, the Petitioner has been claiming the return on equity @ 2% since the financial year 2009-10 onwards. Return on equity has been computed on the normative equity portion (30%) of capitalised assets.

The Petitioner has computed the eligible return on equity by considering the opening normative equity as on 1st April 2020 as discussed above. Subsequently, it has considered the normative equity closing based on the capital additions for the FY 2022-23 depicted in aforementioned sections.

Thus, the claimed return on equity for FY 2022-23 has been computed to be Rs. 203.86 crore as depicted in the table below:

Table 5.10-1: Allowable Return on Equity for FY 2022-23

(All figures in Rs Crore)

Particulars	Derivation	FY 2022-23
Equity at the beginning of the year	A	9,760.11
Assets Capitalised	B	3,739.95
Addition to Equity	C = 30% of B	865.69
Closing Equity	D = A + C	10,625.81
Average Equity	E = Average of A & D	10,192.96
Rate of Return (%)	F	2.00%
Return on Equity	**G = E x F**	**203.86**

5.11 Summary of ARR for FY 2022-23

The ARR petition for FY 2022-23 is summarized in the table below:

Table 5.11-1: Summary of ARR of FY 2022-23

(All figures in Rs Crore)

Particulars	ARR Petition
O&M Cost	1,536.94
Employee cost	*1,088.53*
A&G expenses	*53.38*
R&M expenses	*395.03*
Interest on Loan Capital	1,489.55
Interest on Working Capital	58.49
Depreciation	1,687.17
Gross Expenditure	**4,772.14**
Less: Employee cost capitalized	447.27
Less: A&G Capitalisation	0.00
Less: Interest Capitalisation	210.74
Net Expenditure	**4,114.13**
Provision for Bad & Doubtful debts	-
Prior Period Items, Debits, write-offs & other expenses/Comprehensive Incomes	-
Net Expenditure with provisions	**4,114.13**
Add: Return on Equity	203.86
Less: Non-Tariff Income	145.55
Annual Revenue Requirement (ARR)	**4,172.43**
Less: Estimated ARR for UPSLDC	**33.39**
ARR for UPPTCL	**4,139.04**
Energy Delivered (MUs)	**1,30,426.87**
Transmission Tariff (Rs./kWh)	**0.3173**

The Petitioner requests the Hon’ble Commission to allow the above ARR of Rs. 4,139.04 crore.

6 Projected Annual Revenue Requirement (ARR) for UPSLDC:

The Uttar Pradesh State Load Despatch Centre (UPSLDC) currently a part of Uttar Pradesh Power Transmission Corporation Limited (UPPTCL) was established in 2011 as per the Government of Uttar Pradesh's (GoUP) Notification No. 78/24-U.N.N.P-11-525/08 dated 24th January 2011 in exercise of the powers under the Section 31 of the India Electricity Act 2003. UPSLDC earlier referred to "Power Systems Unit" of the erstwhile Uttar Pradesh State Electricity Board (UPSEB) is the nerve centre of the state's entire power system and is responsible for real time operation of Uttar Pradesh Grid. The Section 31 of the Indian Electricity Act 2003 (Act) provides for establishment of SLDC as a separate entity.

As per provisions under the Electricity Act 2003, separate State Load Despatch Centre (SLDC) is to be established by the State Government to ensure integrated operation of Power System in the State.

Further the MYT Transmission Regulations 2014 and MYT Regulations 2019 provide that till such time the State Government establishes separate SLDC, STU shall also operate SLDC functions and till complete segregation of accounts between SLDC function & transmission function, STU shall apportion its cost between (i) SLDC function and (ii) Transmission Function based on an allocation statement & basis of such apportionment shall be clearly indicated in the ARR petition.

Currently the function of SLDC is being discharged by a separate wing within UPPTCL. Further, Hon'ble Uttar Pradesh Electricity Regulatory Commission (UPERC) vide Notification no. UPERC/Secy/SLDC regulation/2020-043 dated 14th May 2020 has notified the UPERC (Fees & Charges of State Load Despatch Centre and other related matters) Regulations 2020, (hereinafter referred to as "SLDC Regulations 2020") which provides for filing of MYT Business Plan and tariff petitions for SLDC for the period for FY 2021-22 to FY 2024-25. The petitioner in the current Petition has estimated the ARR of UPSLDC for the FY 2021-22 and FY 2022-23 as follows:

Table 6-1: Summary of ARR of UPSLDC

(All figures in Rs Crore)

Particulars	APR	ARR
	FY 2021-22	**FY 2022-23**
Net O&M Expenses		
R&M Expense	6.00	6.60
Net Employee Expenses	26.40	29.04
Net A&G Expense	2.95	3.24
Total Net O&M expenses	35.35	38.88
Depreciation	**1.10**	**1.21**
Interest on Loan	-	-
Return on Equity	-	-
Capital Expenditure	0.15	0.17

Particulars	**APR**	**ARR**
	FY 2021-22	**FY 2022-23**
Other Expenditure	-	-
Non-tariff Income	6.55	6.87
Total Expenditure	**30.05**	**33.39**

Further, the Hon'ble Commission in its tariff order dated 29th June 2021 has observed that:

> *"6.12.5 Taking all the above into consideration, the SLDC expenses are not being allowed in the UPPTCL ARR for FY 2021-22. SLDC is directed to approach the Commission separately under the SLDC Regulation, 2020 for the same. Accordingly, the ARR of SLDC of Rs. 36.71 Crore is disallowed from UPPTCL ARR of FY 2021-22."*

In line with the observations of the Hon'ble Commission, the above ARR is excluded from the ARR of the UPPTCL for the FY 2021-22 and FY 2022-23. Further, the Petitioner shall file a separate Petition for UPSLDC for the FY 2021-22 and FY 2022-23.

7 Proposed Transmission Tariff & Open Access Charges:

7.1 Derivation of Tariff:

The proposed transmission tariff is in accordance with the methodology provided in MYT Regulations 2019. It provides that in case of more than one long-term customers of the Transmission system (distribution licensee/long term open access customers), utilizing transmission system, the wheeling charges leviable on such customers shall be computed as per the following formula:

Transmission / wheeling charges payable by the long term of customer of Transmission system for use of transmission system for a month

= (Net ARR/12)*(CL/SCL)

CL = Allotted Transmission Capacity in MW of particular long term customer.

SCL = Sum of the Allotted Transmission Capacities (in MW) to all long-term customers.

Presently, the distribution companies have not been allotted transmission capacity; as such, the transmission tariff has been calculated on the basis of numbers of units wheeled by the transmission licensee for distribution licensees'. This is based on the same approach adopted by the Commission in its previous Tariff Orders.

Further, the Petitioner has estimated the total energy to be delivered to distribution licensees in FY 2022-23 as 1,30,426.87 MUs. The Petitioner has considered the same as per the projection of the distribution licensees and estimated the same of the LTCs for the FY 2021-22 & FY 2022-23. The total energy to be handled by the Petitioner during the FY 2022-23 is provided in the table below:

Table 7.1-1: Energy Projections

Discoms/LTCs	FY 2021-22	FY 2022-23
DVVNL	27,746.32	27,429.00
MVVNL	25,473.97	25,399.49
PVVNL	35,531.70	36,574.36
PuVVNL	27,398.30	27,494.71
KESCO	3,844.02	3,935.77
NPCL	2,587.00	3,036.00
Northern Railway (U.P)	1,458.29	1,531.21
Open Access Customers	4,786.99	5,026.34
Total	**1,28,826.60**	**1,30,426.87**

Based on the above mentioned methodology, the Petitioner seeks approval of transmission charges payable by all the licensees in the state for FY 2022-23 as computed below:

Table 7.1-2: Derivation of Transmission Tariff for FY 2022-23

Particulars	Unit	FY 2022-23
		ARR Petition
Annual Revenue Requirement	Rs Crore	4,139.04
Energy delivered to Discoms/LTCs	MU	1,30,426.87
Transmission Charges	**Rs./kWh**	**0.3173**

Further, if any Discom's consumer availed Short Term Open Access then there will be decrease in the estimated energy of the Discoms; as the Discom's estimate their demands on the basis of connected load along with prospective growth of its existing consumers as well as new consumers. Further, the Petitioner proposes the revised open access charges for FY 2022-23 as follows:

Table 7.1-3: Revised Open Access Charges for FY 2022-23

Particulars	Unit	FY 2022-23
Short Term Open Access Transmission Charges	Rs./kWh	**0.3173**
Long Term Open Access Transmission Charges	Rs./kWh	**0.3173**

The Petitioner submits that the energy handled as projected in the above para for the purpose of ARR are voltage independent, thus the Petitioner proposes uniform open access charges irrespective of voltage levels for the FY 2022-23. The same is consistent with existing practices adopted by CERC, in which uniform rate for all voltage level is adopted and single rate is informed to Northern Region Load Despatch Centre for display and adoption in their website for short term open access users. Further, the same rates have been also approved by the Hon'ble Commission for open access charges irrespective of the voltage levels in its order dated 10th November 2020.

In addition to the above charges, the open access customer would also be liable to bear the projected transmission losses to the tune of 3.27% for FY 2022-23 irrespective of the voltage levels at which the consumers are connected with the grid. The same has been considered as per the losses approved by the Hon'ble Commission in its order dated 15th October 2020.

8 Compliance with Directives

The Hon'ble Commission had issued certain directives to the UPPTCL in its Order dated 29th June 2021. The Petitioner submits the status of compliance of the directives as follows:

Table 8-1: Status of Compliance of the Directives issued vide Order dated 29th June 2021

S. No.	Directives issued by Hon'ble UPERC in order dated 29th June 2021	Comments and Status of Compliance by Petitioner
1.	The Commission directs the Petitioner to submit the details of the final outcome of the issues raised by CAG regarding CWIP and its impact (with regards, to FY 2017-18 & FY 2018-19). Further, the Commission directs the Petitioner to submit CAG reports for FY 2019-20.	The Petitioner hereby submits the CAG report for FY 2019-20, the same is attached with this Petition as **Annexure 10**. The final outcome of the issues and comments of the CAG are provided in the attached report.
2.	As per Section 17(4) of the Electricity Act, 2003 prior approval should be taken for transfer / sell / renting of its Assets. The Licensee may strictly follow the same.	The Petitioner submitted that, in line with the directions of the Commission, the directives have been issued to the field units for compliance of the same in the future. Further, in case of any such transfer, the Petitioner shall take prior approval from the Commission.
3.	The Commission directs the Petitioner to submit the detailed capital investment plans / schemes/ projects of 220 kV and above and other capital expenditure of value exceeding Rs. 20 Crores for prior approval as per MYT Regulations, failing which the Commission may not allow the capex in the ARR and Tariff. Such investment approval Petitions should be accompanied with detailed techno-economic analysis preferably based on load flow study, IRR computations, if any.	The Petitioner is already taking the prior approval of the schemes from the Hon'ble Commission in line with the MYT Regulations 2019 for the assets planned from 1st April 2020. The status of the approval of the schemes/assets is provided in the **Annexure 8**.
4.	The Commission directs the Petitioner to maintain a separate individual asset wise FAR for assets capitalized after 1.4.2020. Accordingly, from FY 2020-21 onwards UPPTCL to maintain two separate Gross Blocks (one for assets upto 31.3.2020 and second for assets after 1.4.2020)	The required provisions for preparation of separate FAR for assets capitalized after 1.4.2020 are being implemented in the ERP system.

S. No.	Directives issued by Hon'ble UPERC in order dated 29th June 2021	Comments and Status of Compliance by Petitioner
	and two separate FAR`s depicting addition of Assets details from 01.04.2020 onwards for the purpose of depreciation computation.	
5.	The Commission directs the Petitioner to expedite the process to separate the SLDC from UPPTCL in order to make SLDC as an independent body. Also, SLDC shall ensure to file its ARR Petition in accordance with UPERC SLDC Regulations, 2020.	The Petitioner submits that in view of the SLDC Regulations 2020 and directions of the Commission, UPPTCL in a board meeting held in November 2020 has passed resolution to segregate UPSLDC from UPPTCL. Currently, UPPTCL is in process of preparation of detailed proposal for submission of the same before the Board of Directors (BoD). The detailed proposal has been approved by the BoD on 5th January 2022 and subsequently a cabinet note has been submitted to GoUP vide Letter No. 2281 dated 25th February 2022 (Copy enclosed as Annexure 14) for final approval. Further, the separate Petition for the ARR of SLDC for the FY 2021-22 and FY 2022-23 is under preparation and the same shall be submitted before the Hon'ble Commission.
6.	The Commission directs the Petitioner to ensure to file its ARR/ Tariff Petition on time strictly in accordance with the applicable UPERC MYT Regulations.	The Petitioner is filing the ARR/tariff Petition as per the timelines specified in the MYT Regulations 2019. The Petitioner shall endeavour to comply with the timelines in future also.

S. No.	Directives issued by Hon'ble UPERC in order dated 29th June 2021	Comments and Status of Compliance by Petitioner
7.	The Commission directs that in case UPPTCL has planned a Green Field project it must undertake techno- commercial feasibility exercise with respect to an existing Brown field project(s) and accordingly take further necessary actions in order to build, maintain and operate an efficient and economical intra-state transmission system	The Petitioner submits that the detailed justification of the green field or brown field projects is already submitted in the DPR while seeking approval of the Hon'ble Commission for the assets planned from 1st April 2020. The Petitioner shall submit the same for the newly approved assets on quarterly basis in future.
8.	The Petitioner shall upload on its website the Petition filed before the Commission along with all regulatory filings, information, particulars and related documents, which shall be signed digitally and in searchable pdf formats along with all Excel files and as per any other provision of the Regulations and Orders of the Commission. The Petitioner shall also ensure that these files are broken into such size which can be easily downloaded.	The Petitioner shall upload the petitions as per the directions of the Commission at the time of the admittance.

9 Prayers

The Petitioner prays that the Hon'ble Commission may be pleased to:

- Admit the True up Petition for FY 2020-21 based on audited annual accounts of FY 2020-21.

- Approve the expenditure side truing up of the ARR for FY 2020-21 to the tune of Rs. 3,801.31 crore, revenue side truing up pertaining to FY 2020-21 to the tune of Rs. 2,434.28 crore; and thereby allow the recovery of the un-recovered revenue gap of Rs. 1,367.02 crore upon truing up for FY 2020-21 from the date of order upon the instant petition in the proportion of amount billed to the Distribution Licensees and other beneficiaries in FY 2020-21.

- Admit the APR Petition for FY 2021-22 based on the revised estimates and ARR & tariff petition for FY 2022-23.

- Approve the revised Annual Revenue Requirement of Rs. 3,886.65 as per the APR petition for FY 2021-22 and ARR of Rs. 4,139.04 crore in FY 2022-23 and approve the revised transmission tariff and open access charges of Rs. 0.3173 /kWh for FY 2022-23 based on the ARR and Tariff petition for FY 2022-23.

- Consider the estimated ARR for the UPSLDC of Rs. 30.05 crore and Rs. 33.39 crore for FY 2021-22 and FY 2022-23 respectively and allow the Petitioner to file a separate ARR petition for ARR of UPSLDC for the FY 2021-22 and FY 2022-23.

- Allow the Petitioner to add/ change/ alter/ modify this application at a future date.

- Issue any other relief, order or direction which the Hon'ble Commission may deem fit.

- Condone the delay in filing of the current Petition.